

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

)	
)	
IN RE EUROPEAN GOVERNMENT BONDS)	Lead Case No. 1:19-cv-2601
ANTITRUST LITIGATION)	
)	Hon. Victor Marrero
)	
)	<u>JURY TRIAL DEMANDED</u>
)	
)	
)	

FOURTH AMENDED CONSOLIDATED CLASS ACTION COMPLAINT

[REDACTED]

Plaintiffs Ohio Carpenters' Pension Fund, Electrical Workers Pension Fund Local 103 I.B.E.W., and San Bernardino County Employees' Retirement Association ("Plaintiffs"), on behalf of themselves and all others similarly situated, file this Complaint against Defendants Bank of America, N.A. and Merrill Lynch International (together, "Bank of America"); Natixis S.A. ("Natixis"); NatWest Markets plc (f/k/a Royal Bank of Scotland plc) and NatWest Markets Securities Inc. (f/k/a RBS Securities Inc.) (together, "RBS"); Nomura Securities International Inc. and Nomura International PLC (together, "Nomura"); UBS AG, UBS Europe SE, and UBS Securities LLC f/k/a UBS Warburg LLC (together, "UBS"); UniCredit Bank AG and UniCredit Capital Markets LLC (together, "UniCredit"); Citigroup Global Markets Limited and Citigroup Global Markets Inc. (together, "Citigroup"); JPMorgan Chase Bank, N.A., J.P. Morgan Securities plc (f/k/a J.P. Morgan Securities Ltd.), and J.P. Morgan Securities LLC (f/k/a J.P. Morgan Securities Inc.) (together, "JPMorgan"); RBC Europe Limited f/k/a Royal Bank of Canada Europe Limited, Royal Bank of Canada, and RBC Capital Markets, LLC (f/k/a Dain Rauscher Inc.) (together, "RBC"); Jefferies International Limited and Jefferies LLC (f/k/a Jefferies & Company, Inc.) (together, "Jefferies"); and State Street Corporation and State Street Bank and Trust Company (together, "State Street"). Plaintiffs' allegations are made on personal knowledge as to Plaintiffs and Plaintiffs' own acts and upon information and belief as to all other matters.

I. NATURE OF THE ACTION

1. Plaintiffs' claim arises from Defendants' and their co-conspirators' anticompetitive scheme to fix, raise, maintain, stabilize, or otherwise manipulate the price of Euro-denominated bonds issued by European governments ("European Government Bonds") and sold and purchased throughout the United States from at least as early as January 1, 2007 through at least December 31, 2012 (the "Class Period").

2. European Government Bonds are sovereign debt issued by European central governments that have adopted the Euro as their official currency, including Austria, Belgium, Finland, France, Germany, Italy, Portugal, Greece, Ireland, the Netherlands, and Spain, among others (collectively, the “Eurozone”). As of 2012, the global holdings of European Government Bonds were around \$8 trillion. Major purchasers and holders of European Government Bonds include U.S. institutional investors, mutual funds, hedge funds, pension funds, and insurance companies.

3. Defendants are among the world’s largest dealers of European Government Bonds. Defendants compete with each other and other dealers to acquire European Government Bonds in the “primary market,” – *i.e.*, the auction process that European governments use to issue new European Government Bonds. Many Defendants, enumerated below, are known as “primary dealers,” and they hold significant power and influence in the European Government Bond market.

4. Bond dealers also compete for customers based on the prices they quote for the purchase and sale of European Government Bonds in the post-auction (*i.e.*, secondary) market. The smaller the “spread” (difference) between the “bid” (buy) and “ask” (sell) quoted to the customer, the better and more competitive the prices are for customers.

5. In exchange for the primary dealers’ commitment to make markets for European Government Bonds – *i.e.*, quote a price to buy or sell – and purchase new European Government Bonds in auctions, European Government Bond issuers grant primary dealers access to non-public information about new European Government Bond issuances, as well as the funding needs of the issuers. Primary dealers also obtain valuable customer order-flow information – *e.g.*, customer identity, order size, and price – in the run-up to the auction, which allows the dealers to gauge

investor appetite for the newly-offered European Government Bonds that will then trade in the post-auction, secondary market.

6. European Government Bond issuers rank the primary dealers in terms of their level of participation in the auctions and their ability to provide liquidity in the secondary market. Primary dealers can improve their ranking by obtaining large quantities of European Government Bonds at each auction. These rankings are important because European Government Bond issuers reward high-ranking primary dealers with other business, including lucrative underwriting and derivatives trading business.

7. This case has arisen out of Defendants' and their co-conspirators' agreement to collusively bid above the market price for the bonds issued at auction, guaranteeing themselves a dominant share of supply (and thus control over the price) for each newly auctioned European Government Bond. An analysis of European Government Bond prices at and around the time of the auctions demonstrates the persistent overpricing of bonds at the auctions. Defendants profited from this misconduct by selling the bonds they purchased in the auctions at artificially inflated prices to investors like pension funds, insurance companies, and mutual funds, who routinely bought, sold, and held European Government Bonds.

8. Defendants' and their co-conspirators' collusive bidding also maintained or increased their rankings among primary dealers, which in turn gave Defendants and their co-conspirators access to more lucrative business from European Government Bond issuers. In essence, Defendants and their co-conspirators were willing to trade the short-term costs of overbidding in European Government Bond auctions for increased trading profits when they sold those bonds to investors in the secondary market and the chance to reap even larger rewards from future highly profitable government contracts.

9. Economic analysis also shows that Defendants extracted additional, illicit gains from the European Government Bond market by agreeing to fix the bid-ask spreads they quoted to customers, thereby further increasing the prices investors paid for the European Government Bonds or decreasing the prices at which investors sold the bonds. No primary dealer could widen its bid-ask prices unilaterally without losing trading business to its competitors. Such action also could jeopardize a primary dealer's ability to secure new underwriting business from European Government Bond issuers in the future. Thus, Defendants conspired to widen the bid-ask prices – a sort of “safety in numbers” approach (albeit an unlawful one).

10. Plaintiffs have uncovered direct evidence of pricing coordination among Defendants in electronic chat rooms, as well as economic evidence indicating parallel supracompetitive pricing by the Defendants (and by individual Defendants) and plus factors. Defendants' traders orchestrated and maintained their conspiracy via regular electronic communications, including non-public instant messaging and chatrooms. Through such communications, these traders secretly discussed their respective customers' identities and confidential information about the size and nature of their orders before agreeing to the bids they would place and the prices that they would quote to their customers for European Government Bonds.

11. A cooperating bank has provided Plaintiffs with direct evidence showing some ways in which Defendants' conspiracy operated. The cooperation materials produced to date show that Defendants and their co-conspirators exchanged commercially sensitive information, including the prices they offered to customers, and coordinated on trading strategies, resulting in a manipulation of the European Government Bond market for their shared benefit and to the detriment of investors in the market, including Plaintiffs and the Class. The cooperation materials

include electronic chatroom transcripts involving Defendants' employees and transaction data. The chat messages provided by the cooperating co-conspirator show how Defendants' traders coordinated by sharing information about specific trades and hedging strategies via a shared jargon language that they developed over years of colluding. This is further evidence that each Defendant was an active participant in the conspiracy to restrain the European Government Bond market during the Class Period.

12. While the cooperating bank had a limited presence in the market during the Class Period – and thus, was not privy to all conspiratorial communications among Defendants – the chat transcripts it provided nonetheless show that Defendants' traders were in constant communication via permanent inter-bank, non-public chatrooms where they pooled information to stay a step ahead of investors, who lacked access to such information. For example, several Defendants' traders belonged to the self-named “Cods and Chips” chat group, a private chatroom used by Defendants and their co-conspirators to effectuate their conspiracy in the European Government Bonds market. The communications from that secret chatroom show that Defendants shared proprietary information about market and bid positions and disclosed current bid positions prior to the market close – all in furtherance of their conspiracy to fix prices in the European Government Bond market.

13. After an extensive investigation, European regulators similarly discovered Defendants' misconduct. The investigation resulted in the European Commission (“the Commission”) issuing a Statement of Objections in January 2019 to eight banks that “participated in a collusive scheme that aimed at distorting competition when acquiring and trading European

government bonds (‘EGBs’).”¹ A Statement of Objections reflects the Commission’s preliminary view that the evidence collected during its investigation shows that the banks violated competition laws. If the violation is confirmed, the Commission can levy fines of up to 10% of each bank’s global revenue. The Commission found that “[t]raders employed by the banks exchanged commercially sensitive information and coordinated on trading strategies. These contacts would have taken place mainly – but not exclusively – through online chatrooms.” In October 2019, a closed-door hearing was held in which the recipients of the Commission’s Statement of Objections were given the opportunity to discuss the charges against them. According to reports, some Defendants have also recently received a “Letter of Facts” that sets out new evidence against them.

14. Defendants’ misconduct injured investors in European Government Bonds. Defendants have inflated the prices at which they sold European Government Bonds to investors and reduced the prices at which they purchased these products from investors, including Plaintiffs and members of the Class (defined below). Thousands of investors have transacted billions of dollars’ worth of European Government Bonds in the United States directly with Defendants. Plaintiffs, on behalf of themselves and all others similarly situated, seek damages as a result of the unlawful conduct, trebled as provided by law.

II. JURISDICTION AND VENUE

15. This Court has subject matter jurisdiction under Sections 4 and 16 of the Clayton Act (15 U.S.C. §§15(a) and 26). This Court also has subject matter jurisdiction under 28 U.S.C. §§1331 and 1337(a).

¹ European Commission, Press Release, “Antitrust: Commission sends Statement of Objections in European government bonds cartel” (Jan. 31, 2019), http://europa.eu/rapid/press-release_IP-19-804_en.htm.u.

16. Venue is proper in this District pursuant to 15 U.S.C. §§15(a), 22 and 28 U.S.C. §1391(b), (c), (d) because during the Class Period all Defendants resided, transacted business, were found, or had agents in this District; a substantial part of the events or omissions giving rise to these claims occurred in this District; and a substantial portion of the affected interstate trade and commerce discussed herein has been carried out in this District.

17. Defendants Citigroup Global Markets Limited, Jefferies International Limited, JP Morgan Securities plc, Merrill Lynch International, Natixis S.A., Nomura International plc, NatWest Markets plc, RBC Europe Limited, State Street Bank and Trust Company, UBS Europe SE, and UniCredit Bank AG conduct business in this District themselves or through their subsidiaries and affiliates as agents, as well as through branch offices and trading hubs located in this District, as described below.

18. This Court has personal jurisdiction over each Defendant because, as described below, these Defendants played an integral role in conducting substantial European Government Bond promotion, marketing, trading, and sales in this District and in the United States continuously throughout the Class Period and derived substantial profits from these activities.

19. As alleged below, a substantial part of the events giving rise to Plaintiffs' claim occurred in this District and the United States. Defendants and their co-conspirators agreed to fix the prices of European Government Bonds that Defendants distributed into the United States for sale to investors located in this District and throughout the United States.

20. Defendants, both on their own and acting through their subsidiaries and affiliated entities as agents, purposefully availed themselves of this forum by, *inter alia*: (a) agreeing to widen bid-ask spreads, thereby charging investors increased prices for purchases and paying investors decreased prices for sales of European Government Bonds in this District and throughout

the United States; (b) directing European Government Bond sales and trading personnel to solicit investors for billions of dollars' worth of price-fixed European Government Bond transactions in this District and throughout the United States; and (c) collecting unlawful overcharges from investors in this District and throughout the United States.

21. During the Class Period, the European Primary Dealers Association (the "EPDA") was the premier trade association for European Government Bond primary dealers, composed of the 20 largest primary dealers. As of 2012, 25 banks were designated as Association for Financial Markets in Europe ("AFME") Primary Dealer Members.² Only the largest European Government Bond primary dealers were designated AFME Primary Dealer Members. Defendants are members of the EPDA and were active participants in this trade association. As of 2008, the EPDA reported that its members cumulatively traded more than 85% of all volume in the European Government Bonds market.

22. Most entities that are designated European Government Bond primary dealers are part of a global bank's fixed income trading and sales networks. These networks include fixed income sales employees who manage relationships with customers and provide market information and trade recommendations, as well as traders who determine prices quoted to investors for specific categories of fixed income products. Large global banks also employ staff members responsible for ensuring that the bank meets regulatory requirements so that it can execute fixed income transactions with customers located in different jurisdictions and ensuring that these transactions are accompanied by the appropriate trade documentation. Banks use these networks

² In 2009, the EPDA merged with the AFME. Former principal members of the EPDA became known as "AFME Primary Dealer Members."

to trade European Government Bonds with investors in major financial markets, including New York.

23. Defendants Merrill Lynch International, Citigroup Global Markets Ltd., Jefferies International Limited, JP Morgan Securities plc, Natixis S.A., NatWest Markets plc, Nomura International PLC, UBS Europe SE, State Street Bank and Trust, UniCredit Bank AG, and UniCredit S.p.A. (“Primary Dealer Defendants”) were designated European Government Bond primary dealers during the Class Period. Traders employed by the Primary Dealer Defendants were responsible for determining prices quoted to investors in European Government Bond transactions, including hundreds of millions, if not billions, of dollars’ worth of transactions that these entities executed directly with investors in the United States.

24. Each of the Primary Dealer Defendants purposefully exploited the U.S. market for European Government Bonds in at least five ways. **First**, when a sales person employed by a Defendant or affiliated entity received an order from a customer to purchase or sell a European Government Bond, the sales person requested a price quote from a Primary Dealer Defendant’s trader. When traders made pricing decisions, they knew the identity and location of the customer requesting a quote. Thus, when the Primary Dealer Defendants’ traders quoted fixed prices for European Government Bonds to investors in the U.S. market as more particularly alleged below, they intentionally restrained competition in the U.S. market for European Government Bonds. The economic analysis of market prices referenced in this Complaint includes prices that each Primary Dealer Defendant quoted to investors in the United States market during U.S. trading hours.

25. **Second**, unlike an exchange-based market like the stock market, the European Government Bond market is a relatively opaque, over-the-counter (“OTC”) market in which Defendants must interact with customers directly to secure business. Each Primary Dealer

Defendant purposefully availed itself of the U.S. market for European Government Bonds by sending trade recommendations, trade ideas, targeted price levels at which to execute trades, research, and information about the Primary Dealer Defendant's inventory to sales personnel assigned to cover the United States market. Because these same traders were simultaneously carrying out a conspiracy to fix the prices of European Government Bonds, these acts constituted purposeful availment of the U.S. market. Specific examples of efforts to exploit the U.S. market for European Government Bonds are alleged for each Defendant in this section, below.

26. ***Third***, each Primary Dealer Defendant acquired European Government Bonds in the primary market, colluded on the prices at which these bonds were sold to Plaintiffs and the Class in the secondary market, and distributed these bonds into the United States.

27. ***Fourth***, each Primary Dealer Defendant collected funds, including overcharges from their price-fixing conspiracy, from customer accounts located in the United States.

28. ***Fifth***, each Primary Dealer Defendant charged fixed prices in the U.S. market to investors located here. For example, the analysis described in Section VI.B., below, includes prices that each Primary Dealer Defendant quoted in the United States. By quoting fixed prices in the U.S. market and collecting the resulting overcharges from investors located here, each Primary Dealer Defendant purposefully availed itself of the U.S. market for European Government Bonds.

29. The Primary Dealer Defendants, either themselves or through an affiliated entity that was part of the bank's fixed-income trading and sales network, had substantial fixed-income trading and sales operations in this District. From these desks, Defendants' banks promoted, marketed, and sold European Government Bonds to investors located in this District and throughout the United States.

30. Figure 1 below shows that Defendants had U.S.-based dealer affiliates headquartered in this District that helped to promote, market, and sell sovereign bonds, including European Government Bonds, to investors located in this District and throughout the United States.

**Figure 1 – Headquarters of AFME Primary Dealer Members’
U.S.-Based Dealer Affiliates**

AFME Primary Dealer Member	U.S. Dealer Affiliate and its Headquarters
Citigroup Global Markets Limited	Citigroup Global Markets Inc. New York, NY
Jefferies International Limited	Jefferies LLC New York, NY
JP Morgan Securities plc (f/k/a J.P. Morgan Securities Ltd.)	JP Morgan Securities LLC New York, NY
Merrill Lynch International	Merrill Lynch Pierce Fenner & Smith Inc. New York, NY
Natixis S.A.	Natixis Securities Americas LLC New York, NY
Nomura International plc	Nomura Securities International Inc. New York, NY
NatWest Markets plc (f/k/a The Royal Bank of Scotland plc)	NatWest Markets Securities Inc. New York (until at least 2009), Stamford, CT
RBC Europe Limited (f/k/a Royal Bank of Canada Europe Limited)	RBC Capital Markets, LLC New York, NY
State Street Bank and Trust Company	State Street Global Markets, LLC Boston, MA
UBS Europe SE (f/k/a UBS Limited and UBS Deutschland AG)	UBS Securities LLC New York, NY

AFME Primary Dealer Member	U.S. Dealer Affiliate and its Headquarters
UniCredit Bank AG	UniCredit Capital Markets LLC New York, NY

31. Defendants also focused on customers in critical geographic markets by designating certain geographic locations in which they maintained significant fixed income trading and sales operations as hubs. As shown in Figure 2, Defendants designated the New York metro area as a U.S. hub for their global fixed income trading and sales operations.

Figure 2 – Locations of AFME Primary Dealer Members’ Fixed Income Trading Hubs

AFME Primary Dealer Member	Fixed Income Trading and Sales Hubs
Citigroup Global Markets Limited	New York , London, Zurich, Hong Kong, Singapore
Jefferies International Limited	New York , London, Paris
J.P. Morgan Securities plc (f/k/a J.P. Morgan Securities Ltd.)	New York , London, Sao Paulo, Tokyo, Hong Kong, Singapore, Mumbai
Merrill Lynch International	New York , London, Hong Kong
Natixis S.A.	New York , Paris, Hong Kong
Nomura International plc	New York , London, Hong Kong, Tokyo
NatWest Markets plc (f/k/a The Royal Bank of Scotland plc)	New York (until at least 2009), Stamford (CT) , London, Singapore
RBC Europe Limited (f/k/a Royal Bank of Canada Europe Limited)	New York , Toronto, London, Sydney, Tokyo
State Street Bank and Trust Company	Boston (MA) , Toronto, Montreal, London, Paris, Zurich, Munich, Sydney, Tokyo, Hong Kong, Singapore

AFME Primary Dealer Member	Fixed Income Trading and Sales Hubs
UBS Europe SE (f/k/a UBS Limited and UBS Deutschland AG)	New York, Stamford (CT), London, Zurich, Singapore
UniCredit Bank AG	New York, London, Munich, Paris, Madrid, Hong Kong, Shanghai

32. Accordingly, Defendants’ activities were within the flow of, were intended to, and did have a substantial effect on the interstate and foreign commerce of the United States.

A. Merrill Lynch International Purposefully Availed Itself of the U.S. Market for European Government Bonds

33. Merrill Lynch International (“MLI”) traders located in MLI’s London headquarters were responsible for determining European Government Bond prices charged to investors located in the United States, including transactions that MLI entered into with Plaintiffs.

34. MLI conducts substantial activities as part of Bank of America Corporation’s “Global Banking and Markets” business segment. In this capacity, during the Class Period, MLI served as a European Government Bond primary dealer from its headquarters in London. MLI distributed European Government Bonds into the United States to U.S.-based affiliates that were also organized under Bank of America Corporation’s Global Banking & Markets business segment, such as Merrill Lynch, Pierce, Fenner & Smith, Incorporated.

35. MLI also distributed promotional materials and research concerning European Government Bonds to investors in the United States to attract business in the U.S. market. MLI acted throughout the Class Period to cultivate European Government Bond business in the United States. For example, MLI’s “European Rates Research” team supported MLI’s U.S. trading and sales efforts by conducting research, supplying trade ideas, and publishing analysis of European Government Bonds for MLI’s customers and distributed these materials to customers in the U.S.

market. This team reported to Bank of America Corporation's "Global Research" division within its "Global Banking & Markets" business segment, which was headquartered in this District.

36. As another example, MLI tailored research publications concerning European Government Bonds for investors in the United States market. MLI listed U.S.-based sales employees as contacts through which domestic investors could request European Government Bond prices and execute European Government Bond transactions. The May 4, 2011 edition of "World at a Glance," published by Bank of America Corporation's "Global Banking & Markets" business segment, contains a dedicated section with trade ideas, projections, and analysis of the European Government Bond market for customers to consider when making investment decisions. This section was prepared by Max Leung, an MLI employee based in London, and expressly notes that some of the securities discussed in the publication may only be purchased by "Qualified Institutional Buyers" as defined under U.S. law.

37. The examples alleged above were not isolated occurrences, but instead illustrate MLI's continuous, successful efforts to attract customers for its European Government Bonds business in the United States, leading to substantial volumes of sales, including to Plaintiffs and the Class. MLI employees regularly contributed to and helped to distribute similar research on European Government Bonds in the United States market throughout the Class Period, while MLI traders supported these efforts by providing pricing for European Government Bond transactions that MLI executed with domestic customers.

38. MLI's domestic operations, either directly or through its U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the U.S., including Plaintiffs SBCERA, IBEW Local 103, and Ohio Carpenters.³

39. Accordingly, throughout the Class Period, MLI purposefully availed itself of the U.S. market for European Government Bonds.

B. Natixis Purposefully Availed Itself of the U.S. Markets for European Government Bonds

40. Natixis S.A. ("Natixis") targeted the U.S. during the Class Period by stationing sales employees in New York to arrange European Government Bond trades with customers located in the U.S., boosting its presence here in order to market European Government Bonds to U.S. investors. Over a three-month period in 2011, Natixis made 15 new appointments to its Fixed Income, Commodities, and Treasury ("FICT") Americas team, which marketed European Government Bonds to customers from its offices in New York.

41. These New York-based sales employees, organized under Natixis's FICT Americas division, were responsible for arranging European Government Bond trades with customers located in the United States at prices determined by Natixis's European Government Bond traders.

42. Natixis also operates a U.S. branch, licensed by the New York State Department of Financial Services, at 1251 Avenue of the Americas, New York, New York 10020.

43. Because it conducts substantial business in the United States on its own and through its subsidiaries, Natixis is required under the Dodd-Frank Act to submit an annual Resolution Plans to the Federal Reserve Board, identifying its "Core Business Lines and Activities." Natixis

³ Attached hereto is an Appendix A which displays the Defendant counterparties with which Plaintiffs directly traded European Government Bonds with during the Class Period.

annually identifies its “fixed income, foreign exchange, commodities, and credit markets” business as a key component of its Global Markets business line in the U.S.

44. Natixis’ domestic operations led to significant sales of European Government Bonds to customers in the United States, including Plaintiffs SBCERA and Ohio Carpenters.

45. Accordingly, throughout the Class Period, Defendant Natixis purposefully availed itself of the United States market for European Government Bonds.

C. NatWest Purposefully Availed Itself of the U.S. Market for European Government Bonds

46. Defendant NatWest Markets plc (f/k/a The Royal Bank of Scotland plc) (“NatWest”) operates three U.S. branches in Stamford, Connecticut, San Francisco, California, and San Jose, California.

47. NatWest is a wholly-owned subsidiary of NatWest Group plc, whose American Depository receipts trade on the New York Stock Exchange.

48. NatWest reports that it operates three global trading “hubs,” one of which is located in Stamford, Connecticut. NatWest also reports that it operates “sales offices across key locations in the UK, EU, US and Asia.” Through its trading hub in Stamford and its sales offices in the United States, NatWest markets, prices, and executes European Government Bond trades with investors located in the United States.

49. Natixis organizes its operations and those of its subsidiaries on an integrated “business line” basis. Its fixed income sales and trading operations, including European Government Bond sales and trading operations, form part of the “Capital Markets” division of its “Corporate and Investment Banking” business line.

50. NatWest’s European Government Bond traders also operating within the Global Banking & Markets division, acquired European Government Bonds, distributed European

Government Bonds into the United States to investors, and determined prices for European Government Bond transactions executed with customers in the United States.

51. NatWest purposefully acted in the United States to attract investors in the United States' fixed income markets. For example, NatWest regularly publishes and distributes marketing materials providing existing and prospective customers with market updates, trade recommendations, and reports on fixed-income products, including European Government Bonds. The marketing materials state that its sales team assigned to the U.S. market has "had real success building client trust by consistently and proactively providing them with relevant market colour, content and ideas, backed up by seamless trade execution and delivery of innovative solutions."⁴ These materials include updates, market information, and trade recommendations for European Government Bond transactions.

52. NatWest's success at exploiting the U.S. market is the result of sustained marketing and promotional efforts throughout the Class Period. For example, NatWest publishes "European Rates Weekly," a research periodical that almost always features analysis and trade recommendations for European Government Bonds. During the Class Period, NatWest disclosed that it prepared the publication for, and distributed it to, "major institutional investors" in the U.S. market (*i.e.*, Plaintiffs and the Class). The publication always closed with an invitation for interested investors in the United States to contact fixed-income sales employees located at NatWest Markets Securities Inc. headquarters in Stamford, Connecticut, who were tasked with managing customer relationships and arranging European Government Bond trades with NatWest.

⁴ NatWest Markets PLC, 2018 ANNUAL RESULTS 2 (2019), <https://investors.rbs.com/~media/Files/R/RBS-IR/results-center/15-02-2019/natwest-markets-annual-results-15-02-2019.pdf>.

53. These examples are not exhaustive, but illustrative of the substantial and continuing acts that NatWest took to develop a customer base for European Government Bonds in the United States throughout the Class Period. These efforts led to significant sales of European Government Bonds to customers in the United States, including Plaintiffs SPCERA, IBEW 103, and Ohio Carpenters.

54. NatWest's London-based European Government Bond traders also traveled to this District to market and transact European Government Bonds. In the following December 30, 2010 chat that included NatWest, UBS Limited, and State Street Bank and Trust, a NatWest trader described a trip to New York and told the other chatroom members that he continued managing his trading book from New York:

December 30, 2010

State Street Bank and Trust Trader 1: bet snow was fun

NatWest Trader 1: ny wasnt the worst hit and we still got like a foot and a half

UBS Limited Trader 1: what [t]ime u out of there

NatWest Trader 1: think 4 something

NatWest Trader 1: gotta stick around as gotta close

UBS Limited Trader 1: ya

UBS Limited Trader 1: same

55. Throughout the Class Period, NatWest transacted substantial business in this District. It operated an additional branch in New York, New York that was licensed, supervised, and regulated by the New York State Department of Financial Services and regulated by the Board of Governors of the Federal Reserve System. The Bloomberg financial news service reports that NatWest's New York Branch "offers a wide range of banking, insurance, and finance-related products and services."

56. NatWest and NatWest Securities conduct business in this District, including by executing European Government Bond transactions directly with investors located in this District.

57. NatWest engaged in billions of dollars in transactions in this District throughout the Class Period. In a consent decree with the New York State Department of Financial Services, NatWest admitted that it “conducted more than 3,500 transactions valued at approximately \$523 million through New York correspondent banks involving Sudanese and Iranian customers” alone.

58. In NatWest’s 2013 Resolution Plan, it reported that it booked corporate loan products to its New York branch, provides funding to those loans on its balance sheet, and accepts third-party deposits through a certificate of deposit program.

59. NatWest serves as an official foreign exchange counterparty to the Federal Reserve’s New York Branch. In this capacity, it engages in substantial market making in foreign exchange products in this District. It is also an active clearing member of the New York Mercantile Exchange.

60. Accordingly, throughout the Class Period, Defendant NatWest purposefully availed itself of the U.S. market for European Government Bonds.

D. Nomura Purposefully Availed Itself of the U.S. Market for European Government Bonds

61. Nomura International PLC (“Nomura International”) was a European Government Bond primary dealer for multiple Eurozone countries during the Class Period. It purposefully availed itself of the U.S. market for European Government Bonds by making substantial sales in the United States, quoting fixed prices to U.S. investors, and cultivating a domestic European Government Bond customer base here on its own behalf and through its U.S. broker-dealer affiliate, Nomura Securities International Inc. (“Nomura Securities”).

62. Both Nomura International and Nomura Securities are subsidiaries of Nomura Holdings Inc. Nomura Holdings publishes annual reports and issues regulatory disclosures on a consolidated basis. In these reports and disclosures, it refers to itself and its subsidiaries as the “Nomura Group.” It reports that it sells government bonds, which include European Government Bonds, to institutional investor clients through its Wholesale Division. The Wholesale Division functions as a single business unit, though it consists of fixed income trading and sales staff employed by both Nomura Securities and Nomura International. The Wholesale Division’s clients include institutional investors in the United States market.

63. For example, Nomura Securities Managing Director, Gregory Cignarella, sold European Government Bonds to asset managers, commercial banks, insurance companies, and hedge funds from Nomura Securities’ New York offices from July 2010 until the end of the Class Period. Jill Scalisi specialized in Global Credit and Structured Credit for Nomura Securities in New York from October 2009 until June 2011.

64. Nomura Securities employed an economist, Jens Nordvig, as a Head of Fixed Income Research from October 2009 until the end of the Class Period. Mr. Nordvig, who was based in New York, regularly provided commentary and research on European Government Bonds to U.S. investors in Nomura Securities’ name, and to financial media in this District and throughout the United States, including *The Wall Street Journal*, *New York Times*, *Businessweek*, CNBC, and Bloomberg TV.

65. These employees are among many other full-time staff within Nomura’s Wholesale Division that interacted with customers and promoted European Government Bonds from Nomura International’s inventory to investors in this District and throughout the United States. Nomura

International traders were responsible for determining the prices at which these domestic European Government Bond transactions occurred.

66. Nomura Holdings states that its Wholesale Division includes a “robust international platform, a global client base across more than 30 countries, and facilitates cross-border transactions worldwide.” A key strength of the Wholesale Division is its “underwriting and sales capabilities” for fixed income products, which include European Government Bonds.

67. Part of the Nomura Group management’s vision includes strengthening its business within the United States. In a recent annual report, the Nomura Group wrote that “Nomura aims to connect Asia including Japan to Europe, the United States and South America to obtain a competitive edge that sets Nomura apart from its peers.”⁵ Nomura describes its core business as “connecting Markets East & West” and wrote to investors that the United States is a “key strategic region for Nomura.”

68. Nomura Holdings’ stock trades on the New York Stock Exchange.

69. Nomura Holdings employs senior executives in its New York office that are responsible for overseeing the Nomura Group’s business activities in the Americas region. For example, the Executive Managing Director and Group Co-COO (Head of the Americas), the Head of Global Markets, the Co-Head of the Americas, and the Executive Chairman for the Americas region for Nomura Holdings, Inc. are all based at Worldwide Plaza, 309 West 49th Street, New York, New York 10019-7316. Nomura International lists the same headquarters and the same company phone number.

⁵ Nomura Holdings, Inc., NOMURA REPORT 2018, at 14 (2019), https://www.nomuraholdings.com/investor/library/ar/2018/pdf/nomura_report_all.pdf.

70. Nomura International's domestic operations, either directly or through its U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the United States, including Plaintiffs SBCERA and IBEW Local 103.

71. Accordingly, throughout the Class Period, Defendant Nomura International purposefully availed itself of the U.S. market for European Government Bonds.

E. UBS Purposefully Availed Itself of the U.S. Market for European Government Bonds

72. UBS AG is a multinational banking institution organized as a public limited company under the laws of Switzerland.

73. UBS AG maintains two branches in the United States, at 299 Park Avenue, New York, New York 01701 and 600 Washington Boulevard, Stamford, Connecticut 06901.

74. UBS AG is a wholly-owned subsidiary of UBS Group AG, whose stock trades on the New York Stock Exchange.

75. Because UBS AG conducts substantial business in the United States both on its own behalf and through its domestic subsidiaries, it is required to submit an annual Resolution Plan to the Federal Reserve Board under the Dodd-Frank Wall Street Reform and Consumer Protection Act. In its first Resolution Plan, filed in 2013, UBS AG informed the Federal Reserve Board that the "great majority of [its] operations are located in three jurisdictions: Switzerland, the United Kingdom and the United States."

76. UBS AG organizes its international operations and those of its subsidiaries on an integrated "business division" basis. Throughout the Class Period, UBS AG's bank-wide European Government Bond sales and trading business formed part of its Investment Bank business line.

77. UBS AG employed sales personnel within the Investment Bank business line to market European Government Bonds in the United States during the Class Period to U.S. investors. For example, the senior European Government Bonds sales employee for UBS Investment Bank was stationed in New York in 2007. These employees were responsible for arranging European Government Trades with U.S. customers that were priced by and sourced from UBS Europe SE, and its European Government Bond primary dealer predecessors, UBS Deutschland AG and UBS Limited.

78. Both UBS Limited and UBS Deutschland AG sold European Government Bonds directly to investors in the United States and distributed European Government Bonds into the United States.

79. Defendant UBS Securities LLC f/k/a UBS Warburg LLC (“UBS Securities”) operations formed part of UBS AG’s global “Investment Bank” business line during the Class Period. UBS AG had full knowledge of UBS Securities’ European Government Bonds sales and trading operations and oversaw all of UBS Securities’ operations. UBS AG was responsible for UBS Securities’ staffing decisions, and UBS Securities’ executives simultaneously held positions in the global Investment Bank organizational structure. For example, UBS Securities’ Chief Executive Officer throughout the Class Period simultaneously held the position of Chief Operating Officer for UBS Investment Bank in the Americas.

80. UBS AG benefitted from UBS Securities’ European Government Bond trading operations throughout the Class Period. In each year’s Annual Report, filed with the SEC, UBS AG included the revenue of UBS Securities in its financial statements, presenting the total figure “as a single economic entity.”

81. UBS AG represents that UBS Securities serves as the agent of UBS AG and its subsidiaries, including UBS Europe SE and its European Government Bond primary dealer predecessors, UBS Limited and UBS Deutschland AG, in the United States for European Government Bond trading operations, noting in its Annual Reports that “[s]ecurities activities in the US are conducted through UBS Securities LLC, a registered broker-dealer.”

82. When U.S. investors engaged in European Government Bond transactions in the United States with entities organized under UBS AG’s bank-wide Investment Bank division, which included UBS AG, UBS Europe SE (and its European Government Bond primary dealer predecessors, UBS Limited and UBS Deutschland AG), and UBS Securities, these trades were priced by European Government Bond traders employed by UBS Limited and UBS Deutschland AG. These traders transmitted prices and inventory for European Government Bond trades with U.S. investors into the United States that were used to execute trades with Plaintiffs and the Class.

83. UBS AG’s and UBS Europe SE’s domestic operations, either directly or through their U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the United States, including Plaintiffs Ohio Carpenters and SBCERA.

84. Accordingly, throughout the Class Period, Defendants UBS AG and UBS Europe SE purposefully availed themselves of the United States market for European Government Bonds.

F. UniCredit Purposefully Availed Itself of the U.S. Markets for European Government Bonds

85. UniCredit S.p.A. organizes itself and its subsidiaries (which it refers to collectively as “UniCredit Group” in its annual reports and required regulatory disclosures) as an “organizational and business model which maintains a divisional structure.”⁶ This divisional

⁶ https://www.unicreditgroup.eu/en/unicredit-at-a-glance/organizational-structure.html?topmenu=INT-TM_ABO2_en054 (last visited Feb. 8, 2021).

structure segments UniCredit S.p.A.'s subsidiaries into certain business units based on the type of business activity that the division undertakes.

86. UniCredit Group's European Government Bond trading and sales business is part of a business division it calls "Corporate & Investment Banking" (the "CIB Division"). The CIB Division's main operating entity is UniCredit Bank AG, which carries out certain "global product lines" in jurisdictions where the CIB Division is active through locally incorporated subsidiaries and branch offices. One of these "global product lines" within the CIB Division is the Markets product line, which engages in European Government Bond trading and sales with customers in major financial centers where UniCredit Bank AG maintains a branch office, including in New York. UniCredit Group describes the CIB Division's business model as serving as a "strategic long-term partner that meets clients' needs and delivers access to Western, Central, and Eastern Europe" to investors located outside of those regions, including investors located in the United States. Pursuant to this business model, the CIB Division (operating through UniCredit Bank AG and UniCredit Capital Markets LLC) offers European Government Bond trading and sales to customers, including in this District and throughout the United States, as alleged in more detail below.

87. One of the key geographic markets for UniCredit Group's CIB Division is the United States. Defendant UniCredit Bank AG has an office located in this District at 150 East 42nd Street, New York, New York 10017. UniCredit Bank AG's New York branch solely undertakes activities for the CIB Division (*i.e.*, the division that engages in European Government Bond trading and sales activities). UniCredit Bank AG's New York branch is so significant to

UniCredit Bank AG’s overall business that it describes this branch as an additional company “headquarters.”⁷

88. Because it conducts substantial business in the U.S. both on its own behalf and through UniCredit Bank AG and UniCredit Capital Markets LLC, UniCredit S.p.A. is required to submit annual Resolution Plans to the Federal Reserve Board under the Dodd-Frank Act. In its annual Resolution Plan, UniCredit S.p.A. refers to “itself and its subsidiaries” collectively as “UniCredit” and reports that “UniCredit operates through US subsidiaries and branches of such entities.”⁸ UniCredit S.p.A. is required under the Dodd-Frank Act to identify and report on its “Core Business Lines” operating in the U.S. “Core Business Lines” are defined as “those business lines of the covered company [*i.e.*, UniCredit S.p.A. and UniCredit Bank AG], including associated operations, services, functions and support, that, in the view of the covered company, upon failure would result in a material loss of revenue, profit, or franchise value.” 12 C.F.R. §381.2(d).

89. UniCredit S.p.A. operates Core Business Lines in the United States that engage in European Government Bond trading and sales with investors located here. One of these Core Business Lines is “Integrated Credit Trading,” which engages in European Government Bond trading and sales activities with investors in the United States. UniCredit Bank AG conducts these activities from offices located in Europe, as well as through its New York Headquarters.

90. UniCredit Bank AG’s New York-based European Government Bond trading and sales activities are highly integrated with its European operations. For example, in its Resolution

⁷ <https://www.unicreditgroup.eu/en/worldwide/our-worldwide-presence/americas/united-states/unicredit-bank-ag-branch.html> (last visited Feb. 8, 2021).

⁸ <https://www.fdic.gov/regulations/reform/resplans/plans/unicredit-165-1312.pdf> (last visited Feb. 8, 2021).

Plan for 2013, UniCredit S.p.A. reported that its “US branches and subsidiaries are so integrated into [UniCredit S.p.A. and UniCredit Bank AG] that the ability to separately divest or reorganize them apart from [UniCredit S.p.A. and UniCredit Bank AG] is highly unlikely.” As part of this integration, UniCredit Bank AG’s New York Headquarters engages in European Government Bond transactions using inventory acquired in the primary market.

91. UniCredit Bank AG offers European Government Bond pricing quotes and engages in European Government Bond transactions directly with investors in the U.S. market. To ensure access to the domestic European Government Bond investor base, UniCredit Bank AG distributes European Government Bond price quotes through various channels, including the Bloomberg Terminal, one of the two most popular sources for European Government Bond pricing information for institutional investors in the United States, as well as over the telephone and through other electronic means. By using the Bloomberg Terminal and other distribution channels that U.S. investors use to access European Government Bond pricing information and execute European Government Bond trades, UniCredit Bank AG distributes European Government Bonds to investors located in the United States.

92. To further target the United States market for fixed income products, including European Government Bonds, UniCredit Bank AG operates a U.S.-based domestic dealer subsidiary, Defendant UniCredit Capital Markets LLC.⁹ UniCredit Capital Markets is registered with the SEC and FINRA, and reports that one of its key business activities is “Fixed Income distribution of foreign securities to US institutional qualified investment buyers [*i.e.*, U.S. investors like Plaintiffs].”¹⁰ These foreign securities include European Government Bonds.

⁹ <https://www.federalreserve.gov/supervisionreg/resolution-plans/unicredit-bk-3g-20181231.pdf> (last visited Feb. 8, 2021).

¹⁰ *Id.*

93. UniCredit Bank AG has knowledge of, benefits from, and exercises some control over UniCredit Capital Markets LLC's fixed income trading and sales activities in the United States, which includes its European Government Bond-related activities conducted from its headquarters located in this District. UniCredit Capital Markets LLC is headquartered in the same office as UniCredit Bank AG's New York Headquarters. UniCredit Bank AG's New York headquarters has its own legal and compliance personnel. These personnel also monitor and control the activities of UniCredit Capital Markets LLC employees. The Head of Legal and Compliance simultaneously serves as UniCredit Capital Markets' President & Chief Compliance Officer and is authorized to sign documents filed with the Securities and Exchange Commission on UniCredit Capital Markets LLC's behalf. UniCredit Capital Markets LLC lists three directors in its disclosures with FINRA. These directors are all high-ranking officers with leadership positions at UniCredit Bank AG's New York headquarters.

94. UniCredit Bank AG also employs sales teams within its "credit" business line to build relationships with fixed income investors in the United States, including European Government Bond investors.

95. UniCredit Bank AG's and UniCredit S.p.A.'s domestic operations, either directly or through their U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the United States, including Plaintiff SBCERA.

96. Accordingly, throughout the Class Period, UniCredit Bank AG and UniCredit S.p.A purposefully availed themselves of the United States market for European Government Bonds.

G. Citigroup Purposefully Availed Itself of the U.S. Market for European Government Bonds

97. Citigroup Global Markets Limited actively cultivated the United States market for European Government Bonds during the Class Period. Between 2007 and 2011, Citigroup Global Markets Limited routinely sent London-based European Government Bonds trader Lee Smallwood on client visits to New York.

98. In addition to its own direct transactions, Citigroup Global Markets Limited also transacted European Government Bonds in the United States through Defendant Citigroup Global Markets Inc., a New York-based, S.E.C.-registered broker-dealer affiliate operating as part of the same Citigroup Inc. business line.

99. Citigroup Inc. organizes its activities on a “business line” basis. Both Citigroup Global Markets Limited and Citigroup Global Markets Inc. operate within the “Markets and Securities Services” business line, known during the Class Period as “Global Markets.” Markets and Securities Services personnel around the world are responsible for Citigroup’s sales and trading of fixed income products, including European Government Bonds, despite being employed by nominally separate legal entities. Citigroup Inc. reported the results from both Citigroup Global Markets Limited and Citigroup Global Markets Inc. together under its Markets and Securities Services business line, boasting that the “breadth, depth and strength of our sales and trading, distribution and research capabilities span a broad range of asset classes, currencies, sectors and products,” including European Government Bonds.

100. Citigroup Global Markets Inc. also employed “FX & Rates eCommerce Product Management” specialist, Vice President Bijon Mehta from the beginning of the Class Period until May 2007. Mehta helped determine business strategy for European Government Bond sales in the

U.S. and worked with European Government Bonds sales and trading employees at Citigroup Global Markets Limited in this capacity.

101. Citigroup Global Markets Inc. employed systematic trading specialist Jamie Mortimore in New York throughout the Class Period. Mortimore developed pricing and risk management tools for European Government Bonds and reported to Citigroup Global Markets Limited's global head of European Government Bond trading.

102. Citigroup Global Markets Limited's domestic operations, either directly or through its U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the U.S., including Plaintiff SBCERA.

103. Citigroup Global Markets Inc. distributed European Government Bonds into the United States and transacted European Government Bonds directly with investors in the United States.

104. Citigroup Global Markets Limited was responsible for pricing all of Citigroup Global Markets Inc.'s European Government Bond transactions with U.S. investors during the Class Period, and each of these trades were executed using Citigroup Global Markets Limited's European Government Bond inventory.

105. Accordingly, throughout the Class Period, Defendant Citigroup Global Markets Limited purposefully availed itself of the U.S. market for European Government Bonds.

H. JPMorgan Purposefully Availed Itself of the U.S. Market for European Government Bonds

106. J.P. Morgan Securities plc traders priced all of Defendant J.P. Morgan Securities LLC's and Defendant JPMorgan Chase Bank, N.A.'s European Government Bond transactions with U.S. investors during the Class Period. These trades were executed using J.P. Morgan Securities plc's European Government Bond inventory.

107. JPMorgan Chase & Co. organizes its activities on a “business segment” basis. Both J.P. Morgan Securities plc and J.P. Morgan Securities LLC operate within the global “Corporate & Investment Bank” business segment, known during the Class Period as “Investment Bank.” Corporate & Investment Bank personnel around the world are responsible for JPMorgan Chase & Co.’s sales and trading of fixed income products, including European Government Bonds, despite being employed by nominally separate legal entities.

108. J.P. Morgan Securities plc distributed research and pricing information on European Government Bonds into the United States during its Class Period through Defendant J.P. Morgan Securities LLC f/k/a J.P. Morgan Securities Inc., a New York-based, S.E.C.-registered broker-dealer acting as its domestic agent. For instance, “J.P.Morgan”-branded newsletters including fixed income research by J.P. Morgan Securities plc personnel, included a disclosure that “JPMSI distributes in the U.S. research published by non-U.S. affiliates and accepts responsibility for its contents.”

109. J.P. Morgan Securities plc’s domestic operations, either directly or through its U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the U.S., including Plaintiff SBCERA.

110. Accordingly, throughout the Class Period, Defendant J.P. Morgan Securities plc f/k/a J.P. Morgan Securities Ltd. (“JP Morgan Securities”), purposefully availed itself of the U.S. market for European Government Bonds.

I. Jefferies Purposefully Availed Itself of the U.S. Market for European Government Bonds

111. Jefferies Financial Group Inc. organizes its activities on a “business segment” basis. Both Jefferies International Limited and Jefferies LLC operate within the global “Investment Banking, Capital Markets and Asset Management” business segment. Prior to a 2013 merger,

“Capital Markets” and “Asset Management” were two separate segments, and the European Government Bond trading and sales activities were housed within Capital Markets.

112. Jefferies Financial Group Inc. operates its Capital Markets business segment as a consolidated international business line using personnel employed by nominally separate legal entities. Jefferies Financial Group Inc. reports that “Jefferies Group and its subsidiaries operate as a global full service, integrated securities and investment banking firm,” and that “Jefferies provides clients sales and trading of investment grade and high yield corporate bonds, U.S. and European government and agency securities.”

113. Jefferies Financial Group Inc. operates its Capital Markets business segment as a consolidated international business line using personnel employed by nominally separate legal entities. Jefferies Financial Group Inc. reports that “Jefferies Group and its subsidiaries operate as a global full service, integrated securities and investment banking firm,” and that “Jefferies provides clients sales and trading of investment grade and high yield corporate bonds, U.S. and European government and agency securities.”

114. As the entity within Jefferies Financial Group Inc. responsible for European Government Bond trading, Jefferies International Limited also published and distributed marketing materials concerning European Government Bonds to Jefferies LLC’s sales staff so that these materials could be sent to European Government Bond customers in the United States. For example, Jefferies International Limited published a marketing newsletter titled “Jefferies European Economic Outlook” containing information about investing in European Government Bonds. The newsletter closes with a disclaimer stating that “This commentary has been distributed in the U.S. by Jefferies LLC headquartered at 520 Madison Avenue, New York, NY 10022, a U.S.-registered broker-dealer.”

115. Jefferies International Limited was responsible for pricing all of New York-based, S.E.C.-registered broker-dealer Jefferies LLC's European Government Bond transactions with U.S. investors during the Class Period, and these transactions were executed using Jefferies International Limited's European Government Bond inventory.

116. Jefferies International Limited's domestic operations, either directly or through its U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the U.S., including Plaintiff SBCERA.

117. Accordingly, throughout the Class Period, Defendant Jefferies International Limited purposefully availed itself of the U.S. market for European Government Bonds.

J. RBC Purposefully Availed Itself of the United States in the European Government Bond Market

118. Defendant RBC Europe Limited f/k/a Royal Bank of Canada Europe Limited ("RBC Europe") is a wholly-owned subsidiary of Defendant Royal Bank of Canada. RBC Europe Limited markets European Government Bonds in the United States to U.S. investors. For example, its analysts were responsible for publishing marketing materials, such as the recurring newsletter "Fixed Income and Currency Strategy," focusing on European Government Bond trade recommendations that RBC Europe distributed to investors in the U.S.

119. Throughout the Class Period, RBC Europe distributed European Government Bonds into the United States and transacted European Government Bonds directly with investors in the United States, including Plaintiff SBCERA. RBC Europe also transacted with U.S. investors through its New York-based, S.E.C.-registered broker-dealer affiliate, Defendant RBC Capital Markets, LLC. RBC Capital Markets LLC is also a wholly-owned subsidiary of Royal Bank of Canada.

120. Royal Bank of Canada recognizes the revenues from RBC Capital Markets LLC and RBC Europe and reports these revenues on a consolidated basis. Royal Bank of Canada organizes its business into several “business lines.” European Government Bond sales and trading personnel nominally employed by both RBC Capital Markets LLC and RBC Europe jointly carried out Royal Bank of Canada’s European Government Bond business as part of the “Capital Markets” business line.

121. For example, RBC Capital Markets LLC and RBC Europe share a brand name, RBC Capital Markets. In annual reports, Royal Bank of Canada makes clear that personnel operating within its Capital Markets business line operate jointly, writing that Royal Bank of Canada is a “Leading North American investment bank with select global reach” and that the objectives for its Capital Markets business line were “expanding and strengthening client relationships in the U.S.” while also “building on core strengths and capabilities in the U.K., Europe, and Asia.” Employees at RBC Capital Markets LLC and RBC Europe worked jointly to carry out these objectives, and with respect to their European Government Bond businesses, to trade European Government Bonds from RBC Europe’s inventory with U.S. investors.

122. Royal Bank of Canada reports that RBC Capital Markets LLC provides clearing services (managing the exchange of money and financial products) for affiliated companies when engaging in financial transactions in the United States, including European Government Bond transactions executed in the United States using RBC Europe’s European Government Bond inventory.

123. Royal Bank of Canada is responsible for compliance and internal controls across its Capital Markets business line, including operations carried out by RBC Europe and RBC Capital Markets LLC.

124. Traders at RBC Europe priced all of Royal Bank of Canada's and New York-based, S.E.C.-registered broker-dealer RBC Capital Markets LLC's European Government Bond transactions with U.S. investors during the Class Period, and these transactions were executed using RBC Europe's European Government Bond inventory.

125. Royal Bank of Canada operates three federal branches in the United States, all of which are subject to regulation and supervision by the OCC and the Board of Governors of the Federal Reserve System. Its New York federal branches are located at 3 World Financial Center, 200 Vesey Street, New York, New York 10281.

126. Royal Bank of Canada's stock is registered with the S.E.C. and is listed on the New York Stock Exchange. In annual reports, Royal Bank of Canada recognizes that the United States is the "second home market" for its Capital Markets business line.

127. During the Class Period, Royal Bank of Canada distributed European Government Bonds to U.S. investors as an agent of its subsidiary RBC Europe.

128. RBC Europe's and Royal Bank of Canada's domestic operations, either directly or through its U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the U.S., including Plaintiffs SBCERA and Ohio Carpenters.

129. Accordingly, throughout the Class Period, Defendants RBC Europe and Royal Bank of Canada purposefully availed themselves of the U.S. market for European Government Bonds.

III. THE PARTIES

A. Plaintiffs

130. Plaintiff Ohio Carpenters' Pension Fund ("Ohio Carpenters") is a Taft-Hartley multi-employer pension fund located in Ohio that provides retirement, disability, and survivor benefits to its participants and beneficiaries. Ohio Carpenters transacted in European Government

Bonds issued by France, Germany, Greece, Ireland, Italy, the Netherlands, and Portugal directly with one or more of the European Government Bond cartel members, including Merrill Lynch International, Bank of America N.A., Natixis S.A., NatWest Markets Securities Inc. (f/k/a RBS Securities Inc.), NatWest Markets plc (f/k/a The Royal Bank of Scotland plc), UBS AG, UBS Europe SE, UBS Securities LLC f/k/a UBS Warburg LLC, Citigroup Global Markets Inc., Jefferies & Company, Inc., JP Morgan Securities plc, and RBC Capital Markets LLC (f/k/a Dain Rauscher Inc.). As a direct and proximate result of Defendants' collusive activities, Ohio Carpenters was injured in its business or property.

131. Plaintiff Electrical Workers Pension Fund Local 103 I.B.E.W. ("IBEW Local 103") is a defined-benefit plan located in Dorchester, Massachusetts. IBEW Local 103 manages more than \$1 billion in assets on behalf of over 8,000 members and beneficiaries. During the Class Period, IBEW Local 103 transacted in European Government Bonds issued by Italy, France, and Germany directly with one or more of the European Government Bond cartel members, including Merrill Lynch International, Nomura International PLC, NatWest Markets plc (f/k/a The Royal Bank of Scotland plc), and UBS AG. As a direct and proximate result of Defendants' collusive and manipulative activities, IBEW Local 103 was injured in its business or property.

132. Plaintiff San Bernardino County Employees' Retirement Association ("SBCERA") is a public pension plan that provides retirement, disability, and death benefits on behalf of approximately 42,000 members and beneficiaries. SBCERA serves 17 employers throughout California and invests more than \$10 billion in assets. SBCERA was established on January 1, 1945. During the Class Period, SBCERA transacted in European Government Bonds issued by: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, and Spain directly with one or more of the European Government Bond cartel members, including

Merrill Lynch International; UniCredit Bank AG (Hypovereinsbank); Natixis; Nomura International PLC; NatWest Markets PLC (f/k/a Royal Bank of Scotland PLC); UBS AG; J.P. Morgan Securities Limited; J.P. Morgan Securities Plc; JPMorgan Chase Bank NA London; Jefferies International LTD; State Street Bank and Trust Co.; Citigroup Global Markets Inc.; Citigroup Global Markets Limited; Royal Bank of Canada; and Royal Bank of Canada Europe LTD. As a direct and proximate result of Defendants' collusive activities, SBCERA was injured in its business or property.

B. Defendants and Co-Conspirators

1. The Bank of America Defendants

133. Defendant Bank of America, N.A. ("BANA") is an Office of the Comptroller of the Currency ("OCC")-registered national banking association with its principal place of business located at 100 North Tryon Street, Charlotte, North Carolina. BANA is a wholly-owned subsidiary of Bank of America Corporation.

134. Bank of America Corporation organizes its activities on a "line of business" basis. Its fixed income sales and trading operations, including its European Government Bond sales and trading operations, are organized under its "Global Banking & Markets" Business Line.

135. Employees within the Global Banking & Markets Business Line market, price, and sell fixed income products, including European Government Bonds, to clients such as large global corporations, financial institutions, and U.S. based businesses.¹¹

136. Defendant Merrill Lynch International ("MLI") is a private unlimited company incorporated in England and Wales with its principal place of business located at 2 King Edward

¹¹ Bank of America Corp., 2018 ANNUAL REPORT 52, 178 (2019), http://media.corporate-ir.net/media_files/IROL/71/71595/BOAML_AR2018.pdf.

Street, London, X0 EC1A 1HQ, United Kingdom. MLI is a wholly-owned indirect subsidiary of Bank of America Corporation. MLI is a broker and dealer in equities, fixed income, currency, and commodities financial instruments. During the Class Period, MLI served as a European Government Bond primary dealer.

137. During the Class Period, MLI priced and executed European Government Bond transactions directly with investors in the United States, including Plaintiffs Ohio Carpenters, IBEW Local 103, and SBCERA.

2. Natixis

138. Defendant Natixis S.A. (“Natixis”) is a multinational banking institution with its principal place of business at 30, avenue Pierre Mendès-France 75013 Paris, France. Natixis is organized as a public company under the laws of France.

139. During the Class Period, Natixis traded European Government Bonds directly with investors in the United States and distributed European Government Bonds into the United States. During the Class Period, Natixis served as a European Government Bond primary dealer.

140. Natixis employed European Government Bond traders to operate a European Government Bond trading desk during the Class Period. These traders acquired European Government Bonds, distributed European Government Bonds into the United States to investors, and determined prices for European Government Bond transactions executed with customers in the United States, including Plaintiffs Ohio Carpenters and SBCERA.

3. The RBS Defendants

141. Defendant NatWest Markets plc (f/k/a The Royal Bank of Scotland plc) (“NatWest”) is a U.K. public limited company with its principal place of business at 250 Bishopsgate, London, EC2M 4AA, United Kingdom. During the Class Period, NatWest traded European Government Bonds directly with investors in the United States and distributed European

Government Bonds into the United States. During the Class Period, NatWest served as a European Government Bond primary dealer.

142. NatWest organizes its activities and those of its subsidiaries “on a divisional basis” according to function. It conducts fixed income sales and trading, including European Government Bond sales and trading, through its “Markets” division organized under its “Global Banking and Markets” business. NatWest’s subsidiaries that undertake activities within the Markets division do so as part of a “unified service” for NatWest’s corporate and institutional clients, which include pension funds and other institutional investors.

143. NatWest employed a trader identified in chat conversations below as “State Street Bank and Trust Trader 1” prior to his tenure at State Street Bank and Trust. While at NatWest, State Street Bank and Trust Trader 1 was the Head of European Government Bond trading. As head of trading at NatWest, State Street Bank and Trust Trader 1 was responsible for overseeing all of NatWest’s European Government Bond trading. State Street Bank and Trust Trader 1 later led Defendant State Street Bank and Trust’s European Government Bond trading desk before leaving to join Nomura International. As shown in the chats alleged in Part V, below, former State Street Bank and Trust Trader 1 actively participated in private chatrooms in which he and traders employed at other Defendants routinely exchanged sensitive pricing and customer order information in the furtherance of the conspiracy.

144. Defendant NatWest Markets Securities Inc. (f/k/a RBS Securities Inc.) (“NatWest Securities”) is a Delaware corporation with its principal place of business at 600 Washington

Boulevard, Stamford, Connecticut 06901. NatWest Markets Securities Inc. is a registered broker-dealer with the SEC and is the RBS Group's primary U.S.-based broker-dealer.¹²

145. During the Class Period, NatWest Markets and NatWest Securities sold European Government Bonds directly to investors in the U.S. and distributed European Government Bonds into the U.S., including to Plaintiffs Ohio Carpenters, IBEW Local 103, and SBCERA.

4. The Nomura Defendants

146. Defendant Nomura International PLC is a multinational financial services company, organized as a United Kingdom public limited company, with its principal place of business at Nomura House, 1 St. Martin's-Le-Grand London, United Kingdom EC1A 4NP. Nomura International PLC, together with its subsidiaries, operates as a securities broker internationally and in the United Kingdom.

147. Nomura International PLC served as a European Government Bond primary dealer during the Class Period. The company trades in and sells fixed income and equity products, including related derivatives, and provides investment banking, corporate finance, and private equity services.

148. Defendant Nomura Securities International Inc. ("Nomura Securities") is a New York corporation and an S.E.C.-registered broker-dealer with its principal place of business at Worldwide Plaza, 309 West 49th Street, New York, New York 10019. During the Class Period, Nomura Securities sold European Government Bonds directly to investors in the United States and distributed European Government Bonds into the United States.

¹² RBS Group plc Resolution Plan 2015, <https://fdic.dov/regulations/reform/resplans/plans/rbs-165-1512.pdf>.

149. Nomura International PLC and Nomura Securities conduct business in this District. During the Class Period, both entities transacted European Government Bonds directly with investors in this District, including with Plaintiffs IBEW Local 103 and SBCERA.

5. The UBS Defendants

150. Defendant UBS AG is a multinational banking institution organized as a public limited company under the laws of Switzerland. UBS AG maintains a principal place of business at Bahnhofstrasse 45, 8001 Zurich, Switzerland. During the Class Period, UBS AG sold European Government Bonds directly to investors in the United States, including all three Plaintiffs, and distributed European Government Bonds into the United States.

151. Defendant UBS Europe SE, a direct, wholly-owned subsidiary of UBS AG, is a German stock corporation with its principal place of business at Bockenheimer Landstrasse 2-4, D-60306 Frankfurt am Main, Germany. UBS Europe SE is the successor company of both UBS Deutschland AG, a German corporation that merged with UBS Europe SE in December 2016, and UBS Limited f/k/a UBS Warburg Ltd., a United Kingdom limited company that merged with UBS Europe SE in March 2019. Both UBS Limited and UBS Deutschland AG served as European Government Bond primary dealers during the Class Period.

152. During the Class Period, both UBS Limited and its predecessor UBS Warburg Ltd., traded European Government Bonds directly with Plaintiff Ohio Carpenters.

153. Defendant UBS Securities LLC f/k/a UBS Warburg LLC (“UBS Securities”) is a Delaware limited liability company with its principal place of business at 1285 Avenue of the Americas, New York, New York 10019. UBS Securities, an S.E.C.-registered broker-dealer, acts as agent for its corporate parents and affiliates, including UBS AG and UBS Europe SE, in the United States.

154. During the Class Period, UBS Securities sold European Government Bonds directly to investors in the United States, including Plaintiff Ohio Carpenters, and distributed European Government Bonds into the United States.

6. The UniCredit Defendants

155. Defendant UniCredit Bank AG is a wholly-owned, multinational subsidiary of UniCredit S.p.A., with its principal place of business located at Arabellastr 12, 81925 Munich, Germany.

156. Defendant UniCredit Capital Markets LLC is a wholly-owned subsidiary of UniCredit S.p.A. and an S.E.C.-registered broker-dealer incorporated in New York, with its principal place of business located at 150 East 42nd Street, New York, New York 10017.

157. During the Class Period, UniCredit Bank AG sold European Government Bonds directly to investors in the U.S., including Plaintiff SBCERA, and distributed European Government Bonds into the U.S. to its New York branch and its wholly-owned, domestic subsidiary, UniCredit Capital Markets LLC.

7. The State Street Defendants

158. Defendant State Street Bank and Trust Company (“State Street Bank and Trust”) is a multinational banking institution incorporated in Massachusetts. State Street Bank and Trust maintains a principal place of business at 1 Lincoln Street, Boston, Massachusetts 02111. During the Class Period, State Street Bank and Trust served as a European Government Bond primary dealer.

159. State Street Bank and Trust maintains a permanent New York office at 780 Third Avenue, 8th Floor, New York, New York 10017.

160. State Street Bank and Trust is a wholly-owned subsidiary of Defendant State Street Corporation, a Massachusetts corporation with its principal place of business at 1 Lincoln Street,

Boston, Massachusetts 02111. State Street Corporation's stock is listed on the New York Stock Exchange.

161. During the Class Period, United States-based traders within State Street Bank and Trust's Fixed Income Rates Business, led by Head of North American Rates Trading Andrew Newman, traded European Government Bonds directly with United States investors, including Plaintiff SBCERA.

8. The Citigroup Defendants

162. Defendant Citigroup Global Markets Limited is a U.K. private limited company with its principal place of business at Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB, United Kingdom. Citigroup Global Markets Limited is a wholly-owned broker-dealer subsidiary of Citigroup Inc., a Delaware corporation with its principal place of business in New York, New York. During the Class Period, Citigroup Global Markets Limited served as a European Government Bond primary dealer.

163. Throughout the Class Period, Citigroup Global Markets Limited distributed European Government Bonds into the United States and transacted European Government Bonds directly with investors in the United States, including Plaintiffs Ohio Carpenters and SBCERA.

164. Defendant Citigroup Global Markets Inc. is a New York corporation with its principal place of business at 388 Greenwich Street, New York, NY 10013. It is a wholly-owned S.E.C.-registered broker-dealer subsidiary of Citigroup Inc.

165. In addition to its own direct transactions, Citigroup Global Markets Limited also transacted European Government Bonds in the United States through Citigroup Global Markets Inc., an affiliate operating as part of the same Citigroup Inc. business line. Citigroup Global Markets Inc., acting on behalf of Citigroup Global Markets Limited, transacted European Government Bonds directly with investors in the United States, including Plaintiffs Ohio

Carpenters and SBCERA. These trades were priced by traders at Citigroup Global Markets Limited and executed using Citigroup Global Markets Limited's European Government Bond inventory.

9. The JPMorgan Defendants

166. Defendant J.P. Morgan Securities plc f/k/a J.P. Morgan Securities Ltd. is a U.K. public limited company with its principal place of business at 25 Bank Street, Canary Wharf, London, E14 5JP, United Kingdom. During the Class Period, J.P. Morgan Securities plc served as a European Government Bond primary dealer.

167. Throughout the Class Period, J.P. Morgan Securities plc distributed European Government Bonds into the United States and transacted European Government Bonds directly with investors in the United States, including Plaintiffs Ohio Carpenters and SBCERA.

168. J.P. Morgan Securities plc is a wholly-owned broker-dealer subsidiary of JPMorgan Chase & Co., a Delaware corporation with its principal place of business in New York, New York.

169. Defendant J.P. Morgan Securities LLC f/k/a J.P. Morgan Securities Inc. is a Delaware limited liability company with its principal place of business at 383 Madison Avenue, New York, New York 10179. It is a wholly-owned, S.E.C.-registered broker-dealer subsidiary of JPMorgan Chase & Co.

170. Defendant JPMorgan Chase Bank, N.A., a wholly-owned banking subsidiary of JPMorgan Chase & Co., is a U.S. national banking association with its OCC-registered head office at 1111 Polaris Parkway, Columbus, Ohio 43240.

171. JPMorgan Chase Bank, N.A. regularly transacts business through several dozen branches located in this District.

172. JPMorgan Chase Bank, N.A. distributed European Government Bonds to U.S. investors as an agent of its affiliate J.P. Morgan Securities plc. JPMorgan Chase Bank, N.A. also

transacted European Government Bonds directly with investors in the United States, including Plaintiffs Ohio Carpenters and SBCERA.

10. The Jefferies Defendants

173. Defendant Jefferies International Limited is a U.K. private limited company with its principal place of business at 100 Bishopsgate, London, England, EC2N 4JL, United Kingdom. During the Class Period, Jefferies International Limited served as a European Government Bond primary dealer.

174. Throughout the Class Period, Jefferies International Limited distributed European Government Bonds into the United States and transacted European Government Bonds directly with investors in the United States, including Plaintiff SBCERA. Jefferies International Limited also transacted European Government Bonds with U.S. investors through its broker-dealer affiliate, Defendant Jefferies LLC.

175. Jefferies International Limited is a wholly-owned subsidiary of Jefferies Financial Group Inc., a New York corporation with its principal place of business in New York, New York.

176. Defendant Jefferies LLC f/k/a Jefferies & Company, Inc. is a Delaware limited liability company with its principal place of business at 520 Madison Avenue, New York, NY 10022. It is a wholly-owned S.E.C.-registered broker-dealer subsidiary of Jefferies Financial Group Inc.

177. During the Class Period, Jefferies LLC transacted European Government Bonds with U.S. investors as an agent of its affiliate Jefferies International Limited. Jefferies LLC transacted European Government Bonds directly with investors in the United States, including Plaintiff Ohio Carpenters.

11. The RBC Defendants

178. Defendant RBC Europe Limited f/k/a Royal Bank of Canada Europe Limited (“RBC Europe”) is a U.K. private limited company with its principal place of business at 100 Bishopsgate, London, United Kingdom, EC2N 4AA. RBC Europe is a wholly-owned subsidiary of Defendant Royal Bank of Canada. During the Class Period, RBC Europe served as a European Government Bond primary dealer.

179. Defendant Royal Bank of Canada is a multinational banking institution, organized as a Canadian chartered bank. Its principal place of business is located at 200 Bay Street, Toronto A6 M5J2J5, Ontario, Canada.

180. Royal Bank of Canada operates three federal branches in the United States, all of which are subject to regulation and supervision by the OCC and the Board of Governors of the Federal Reserve System. Its New York federal branches are located at 3 World Financial Center, 200 Vesey Street, New York, New York 10281.

181. Royal Bank of Canada’s stock is registered with the S.E.C. and is listed on the New York Stock Exchange.

182. During the Class Period, Royal Bank of Canada distributed European Government Bonds to U.S. investors as an agent of its subsidiary RBC Europe. Royal Bank of Canada transacted European Government Bonds directly with investors in the U.S., including Plaintiff SBCERA.

183. Defendant RBC Capital Markets, LLC f/k/a Dain Rauscher Inc. (“RBC Capital Markets”) is a Minnesota limited liability company with its principal place of business at 3 World Financial Center, 200 Vesey Street, New York, New York 10281. RBC Capital Markets is a wholly-owned subsidiary of Defendant Royal Bank of Canada and an S.E.C.-registered broker-dealer.

184. Throughout the Class Period, RBC Capital Markets engaged in European Government Bonds sales and trading in the United States, distributed European Government Bonds to U.S. investors as an agent of its affiliate RBC Europe, and transacted European Government Bonds directly with investors in the United States, including Plaintiff Ohio Carpenters.

* * * *

185. “Defendant” or “Defendants” as used in this Complaint, includes, in addition to those named specifically above, all Defendants’ predecessors, including those merged with or acquired by Defendants and each Defendant’s parents and wholly owned or controlled subsidiaries or affiliates that played a material role in the unlawful acts alleged in this Complaint.

186. Each Defendant named herein acted as the agent or joint-venturer of or for the other Defendants with respect to the acts, violations, and common course of conduct alleged herein, including in the United States.

187. Whenever reference is made to any act of any corporation, the allegation means that the corporation engaged in the act by or through its directors, officers, employees, or agents while they were actively engaged in the management, direction, control, or transaction of the corporation’s business or affairs.

12. Co-Conspirators

188. Various entities and individuals unknown to Plaintiffs at this time participated as co-conspirators in the acts complained of and performed acts and made statements that aided and abetted and were in furtherance of the unlawful conduct alleged in this Complaint.

IV. FACTUAL BACKGROUND

A. European Government Bond Market

189. The Eurozone is a monetary union comprised of a group of European nations that coordinate economic, fiscal, and monetary policy through a central bank, the European Central Bank, and use a common currency, the euro.

190. Government entities in the Eurozone issue debt in the form of bonds, which are typically used to fund ongoing and future operations.

191. Examples of European Government Bonds include French OATs (Obligations Assimilables du Trésor) (bonds), Italian BTPs (Buoni del Tesoro Poliannuali) (bonds), and German Bundesanleihen or short Bunds (10-30 year bonds).

192. European Government Bonds are treated as a single class of debt securities due to Eurozone members' common monetary policy, common currency, common membership criteria, highly integrated financial market, high degree of economic interdependence, common governance with respect to financial regulation, common central bank, high degree of common systemic risk, and implicit backing in default. For the same reasons, European Government Bond dealers generally organize their trading and sales businesses so that the same team of traders are responsible for determining pricing for European Government Bonds issued by different Eurozone members. Each Defendant organized its European Government Bond business in this manner. For example, MLI traders located at MLI's London headquarters were responsible for making pricing decisions and determining bids for European Government Bonds issued by different European Union countries. Nomura International PLC, NatWest, Natixis, UBS Europe SE, and UniCredit Bank AG, RBC Europe, Citigroup Global Markets Limited, JP Morgan Securities plc, and Jefferies International Limited organized their European Government Bond trading desks in a similar manner. *See generally* Section II, *supra*.

193. Eurozone members developed the “Euro convergence criteria” that all prospective members must meet before joining the Eurozone to ensure that new members meet Eurozone standards and to further the goal of creating an integrated financial market. All new Eurozone members must establish that they have a comparable: (a) degree of inflation; (b) ratio of government budget deficit to gross domestic product; (c) ratio of outstanding government debt to gross domestic product; and (d) long-term interest rates to existing Eurozone members prior to joining the Eurozone.

194. To achieve economic integration, Eurozone members established several centralized bodies to create and implement monetary policy. For example, the European Council is responsible for deciding on the main policy orientations for the Eurozone, while the European Central Bank is responsible for implementing monetary policy. Eurozone members also agree to deficit and debt limits that apply to all Eurozone members through these centralized bodies.

195. Eurozone members created the European Central Bank with the mission “to safeguard liquidity and promote European financial integration.” The European Central Bank defined “financial integration” as follows:

[T]he market for a given set of financial instruments or services [is] to be fully integrated when all potential market participants in such market (i) are subject to a single set of rules when they decide to deal with those financial instruments or services, (ii) have equal access to this set of financial instruments or services, and (iii) are treated equally when they operate in the market.

196. Following their economic integration, the yield on bonds, or return that an investor receives from a bond, from different Eurozone sovereigns began to converge closer together and the market began pricing them as closer substitutes.

197. By March 2007, the European Central Bank reported that the European Government Bond market was “highly integrated.” It concluded that “yields in the government

bond [*i.e.*, European Government Bond] market . . . are increasingly driven by common factors.”¹³

The European Central Bank also concluded that the introduction of the euro and the adoption of a common monetary policy for Eurozone members, among other factors, had caused yields on European Government Bonds from the different Eurozone members to “converge[] towards 1, the level of perfect integration.”¹⁴

198. Global holdings of European Government Bonds were approximately \$8 trillion (€6.3 trillion) as of 2012. The United States is a prominent market for European Government Bonds, with hundreds of billions of dollars in trading volume annually. Figure 3 below shows the market value of U.S. residents’ holdings, stated in millions of U.S. dollars, of European Government Bonds in each year of the Class Period.

Figure 3 – European Government Bonds Held by U.S. Investors (in millions)

	2007	2008	2009	2010	2011	2012
Market Value of EGB Holdings	\$412,632	\$316,240	\$402,966	\$394,223	\$428,561	\$534,150

B. European Government Bond Primary Market

199. European Government Bonds are typically sold in auctions sponsored by European governments’ ministries of finance within the Eurozone. Although less common, European Government Bond offerings can also be made through syndication, in which a group of banks underwrites and conducts the initial sales of European Government Bonds.

200. The sale of European Government Bonds during the auction (or syndication) is known as the “primary market.” Depending on the country, these auctions either allocate bonds

¹³ European Central Bank, *Financial Integration in Europe*, at 13 (March 2007), <https://www.ecb.europa.eu/pub/pdf/fie/financialintegrationineurope200703en.pdf?1470741bc6dcc84cb69ab158c75f5a7e>.

¹⁴ *Id.*

at a single price to all those who bid above a certain level (known as “single price auction”) or to each bidder in descending price order until the supply in that offering runs out (known as “multi-price” auctions). For example, in the single price auctions used for 10-year Italian bonds, the bonds are allocated to the primary dealer that bids the highest price first and then continues in descending order until the supply in that issuance is exhausted. The bid at which supply runs out sets the price known as the “stop out price” – and this is the price paid by every bidder allocated bonds in the auction. Multi-price auctions (such as those for French OATs), in contrast, do not set a single price for all auction participants but rather allocate bonds to dealers in descending price order at the price they bid.

201. To ensure active participation in their auctions, European Government Bond issuers typically select a relatively small group of banks to serve as “primary dealers” of the European Government Bonds. These primary dealers control a significant amount of European Government Bonds issued in auctions. For example, during the Class Period, the EPDA, discussed above in the venue allegations, reported that its members collectively traded more than 80% of all volume in the European Government Bonds market. Often, the same banks act as primary dealers for multiple issuers’ European Government Bonds.

202. Figure 4 below identifies each Eurozone country and Defendants that served as primary dealers of European Government Bonds in that country during the Class Period. Figure 4 shows that there is significant overlap among Defendants that serve as primary dealers. In fact, several Defendants are primary dealers in multiple countries, including Germany, Italy, France, Greece, Portugal, and Austria.

Figure 4 – European Government Bonds Primary Dealers

	<u>Austria</u>	<u>Belgium</u>	<u>Finland</u>	<u>France</u>	<u>Germany</u>	<u>Greece</u>	<u>Ireland</u>	<u>Italy</u>	<u>The Netherlands</u>	<u>Portugal</u>	<u>Slovakia</u>	<u>Slovenia</u>	<u>Spain</u>
MLI	X		X	X	X	X	X	X					
Citigroup Global Markets Ltd.	X	X	X	X	X	X	X	X	X			X	X
Jefferies International Limited					X				X	X		X	
JP Morgan Securities plc	X	X	X	X	X	X	X	X		X		X	X
Natixis		X		X	X				X				X
Nomura International plc	X	X	X	X	X	X	X	X	X	X			X
RBS/NatWest	X	X	X	X	X	X	X	X	X	X			X
State Street Bank and Trust					X								
UBS Europe SE	X	X		X	X	X	X	X					
UniCredit	X				X	X		X		X	X	X	

203. Typically, the banks are selected as primary dealers based on the following criteria:

- (a) their experience in trading sovereign debt and long-term commitment to participating in the sovereign debt market;
- (b) their ability to make markets for investors in the post-auction or “secondary market”;
- (c) their financial strength, which includes their credit rating, capitalization, and appetite for risk; and
- (d) their general ability to promote an active trading market for a country’s European Government Bonds.

204. Primary dealers are generally required, at each auction, to bid a minimum percentage of the full offering. The minimum bid requirement is usually determined as the ratio

of the total number of primary dealers to the full offering – *e.g.*, if there are 10 primary dealers, each primary dealer must bid at least 10% of the total offering. This is to ensure that in the event that no one outside of the primary dealer group bids in a given auction, all of the auctioned European Government Bonds will still be purchased by the primary dealers. It also ensures that primary dealers receive a continuous supply of newly issued European Government Bonds to trade with investors. Primary dealers are not, however, guaranteed to win that portion of bonds for which they bid. The allocation depends on the prices they submitted at auction, as discussed above.

205. Prior to each European Government Bond auction, there is a relatively active forward market – known as the “when issued” market – where dealers (and to a much lesser extent, customers) can offer price quotes to buy or sell the to-be auctioned European Government Bond. One to two weeks prior to an auction, a European Government Bond issuer will announce a date for the upcoming bond auction, along with all the characteristics of the bonds to be offered, *e.g.*, ISIN, coupon, maturity, amount. The bonds can then be quoted and traded immediately in the when issued market. A dealer or customer buying the when issued European Government Bond is obligated to take delivery of the newly issued bond and pay the price under the terms of the transaction. A dealer or customer selling the when issued European Government Bond is obligated to make delivery of the newly issued bond and accept payment. Trading in the when issued market takes place up until the time of the auction.

206. European Government Bond customers typically do not have access to real-time pricing in the when issued market. As a result, customers only see static, non-executable bids and offers. Dealers, by contrast, are able to see real-time bids and offers and thus are able to learn the demand for, and how other dealers value, the new issue. Dealers can learn the market yield, which in a normally functioning market would form the basis for the auction-determined yield.

207. The primary dealers provide valuable information to European Government Bond issuers. Primary dealers often acquire and possess significant amounts of information about client demand and order flows in their roles as market makers. Certain investors, including pension funds and life insurance companies, have long-dated liabilities on their balance sheet that they need to hedge. European Government Bonds have longer durations and lower credit risk than corporate bonds and therefore can more effectively hedge certain forms of long-term liabilities. As these bonds mature, and as the assets under management grow, there is a constant need for bond proceeds to be re-invested to keep the average maturity of the portfolio constant, month-in, month-out.

208. Through the information primary dealers receive about customer demand, primary dealers are able to judge interest in the auction, and in turn, the likely trading activity for auctioned securities in the secondary market. Given the wealth of information primary dealers acquire through their customers, European Government Bond issuers rely heavily on primary dealers' knowledge of investor appetite to better understand what type of offering will attract the most interest in the issuance. Indeed, often prior to the auction, the European Government Bond issuers will discuss with primary dealers how the market is evaluating an offering.

209. European Government Bond issuers monitor the performance of primary dealers in the auctions, ranking them based on how aggressively they bid in the auction – *i.e.*, whether primary dealers will bid large amounts of the auctioned bonds at high prices. Each issuer's debt management office publishes a ranking of primary dealers according to how well they are deemed to have met the obligations of that primary dealership. Primary dealers that consistently obtain the largest portions of auctioned European Government Bonds are ranked higher than dealers that do not.

210. Primary dealers are economically incentivized to maintain a high ranking because it gives them opportunities to participate in even more lucrative transactions with the issuer. One such lucrative opportunity for top-ranked primary dealers is serving as a lead manager of a syndicated issuance. In France, for example, lead syndicate managers are appointed based on expertise, rank, and contribution to the planning and preparation of the transaction. Syndicate managers then have the responsibility and opportunity for market-making in the secondary market for the security. Top-ranked primary dealers also receive preference in derivative transactions, including entering into interest rate swap transactions with the issuers to hedge risk in the government's portfolio. Primary dealers are also incentivized to increase or maintain their primary dealer ranking to acquire investment bank advisory projects from issuers. In addition, from time to time, issuers write call options for primary dealers, the value of which increases as the auction-clearing price increases. Dealers exercising these options are able to obtain additional supply of the newly auctioned securities, which they could then hold or resell in the secondary market.

211. While primary dealers are incentivized to sacrifice capital in the auctions in order to secure greater profits later – either through reselling inflated European Government Bonds in the secondary market or preserving preferential status in gaining more lucrative business – Defendants and their co-conspirators colluded so that they could consistently secure the potential rewards without over-risking capital.

C. Trading in the European Government Bond Secondary Market

212. After the initial issuance of European Government Bonds in the primary market, these bonds are further traded among bond dealers and investors – including pension, hedge, and mutual funds; domestic and international banks; insurance companies and other corporations; and state and local governments in the OTC secondary market. There is an active secondary market for European Government Bonds in the United States.

213. Defendants dominate the secondary market, acting as market makers by providing liquidity to investors and standing ready to buy and sell European Government Bonds whenever an investor seeks to do so.

214. In fact, Eurozone governments often require that primary dealers actively quote new European Government Bond issues to retain their primary dealer status. The governments also monitor the performance of the primary dealers in terms of the volumes they trade and quote in the secondary market. For example, France and Italy rank the performance of their primary dealers in the secondary market in terms of the number and quality of bid and ask quotes and the volume of trades made. It is not uncommon for central governments to demand that primary dealers provide minimum amounts of activity in the secondary market. If a primary dealer fails to do so, it risks receiving a lower ranking or being dropped as a primary dealer altogether.

215. Customers seeking to buy or sell European Government Bonds may contact one or more banks, such as Defendants or another primary dealer, and request pricing for a particular European Government Bond. The bank will quote the price for a European Government Bond in terms of a “bid” or an “ask,” which are usually set in terms of basis points (one basis point equals 1/100 of one percent). The bid represents the price at which a dealer will purchase the European Government Bond; the ask represents the price at which a dealer will sell the European Government Bond. The difference between these two values is the “bid-ask spread” (or “spread”), which reflects the dealer’s profit for acting as a market maker and assuming the risk that it may be unable to buy or sell the European Government Bond in the future at better prices than it is quoting at the time to its customer.

216. As is typical in many financial markets, trading of European Government Bonds is done through telephonic and, increasingly, electronic means. Salespersons at the dealer banks take orders and then relay them to bond traders at the banks' trading desks so that they can be filled.

217. Rational customers want to buy low and sell high. Banks, including Defendants and their bond traders, compete for customers based on the bid and ask prices they offer, and, in turn, the spread between them. The narrower the bid-ask spread, the more competitive the prices. A bank can gain customers and business by offering a narrower bid-ask spread than its competitors. Conversely, if a bank widens the bid-ask spread – by either lowering the bid or raising the ask (or both) – it would likely lose customers to rivals offering narrower spreads. Only through collusion can a dealer quote a wider spread than market conditions otherwise dictate without losing market share and profits.

D. Structure of Defendants' European Government Bond Businesses

218. Defendants' European Government Bond trading and sales personnel are housed within each bank's respective fixed income division. An entity within this division serves as a primary dealer for European Government Bonds issued by multiple Eurozone countries. Traders employed at the primary dealer entity are also responsible for determining pricing for European Government Bond trades with investors. Defendants performed this function on behalf of their respective banking groups during the Class Period.

219. The primary dealer entity acquires European Government Bonds from issuers in the primary market. The traders who undertake primary dealing responsibilities are typically located in the same office, primarily in London and less often, Paris. When primary dealers acquire European Government Bonds, they place them into inventory and distribute them, as needed, to fill customer orders, through the bank's sales and trading network to trading hubs located in major financial centers, including in the United States. Sales personnel at these trading hubs help their

respective European Government Bond primary dealers by interacting with investors, managing client relationships, and receiving and implementing customer European Government Bond orders from trading desks. As described above, Defendants' U.S. entities performed this function in the United States during the Class Period.

220. For example, when a salesperson in the United States sells a European Government Bond to a customer, a trader at the primary dealer entity is responsible for determining the price charged to the customer and executes an internal transaction from the primary dealer's inventory to send the European Government Bond to the bank's U.S. trading desk, which then delivers the bond to the customer. Through these internal transactions, the primary dealer entities distribute European Government Bonds into the United States through their respective U.S. desks to U.S. investors.

221. Defendants' primary dealer entities transacted European Government Bonds directly with customers located in the United States. On other occasions, Defendants also distributed European Government Bonds to United States customers through their United States-based broker-dealer affiliates.

E. Pricing of European Government Bonds

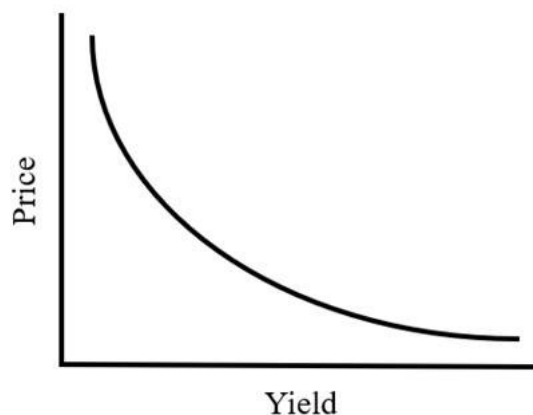
222. As with other bonds, the prices of European Government Bonds are stated in terms of the bond's par value, coupon, maturity date, and yield. A bond's par value is its face value, payable on the bond's maturity date. A bond's coupon is the interest rate that the bond issuer must pay an investor. Coupons are paid to the bond-holder periodically – usually every six or 12 months – until the bond reaches maturity. Yield is a figure that shows the return that an investor receives by holding the bond to maturity.

223. Bond prices can be quoted as a function of the bond's par value or its yield. A bond with a par value of €1,000 may sell at a discount of 2%, or €980. European Government Bonds

are also quoted in fractions of a euro (*e.g.*, 1/32). In the example above, a €1,000 par value bond may be quoted at “98-23.” The “98” reflects the “handle” and the “23” reflects the number of “32nds” (*i.e.*, 23/32). The bond’s price off of par, can be determined by dividing 23 into 32 (0.71875) and adding that to the handle of “98,” which provides the bond’s price as a percent of the bond’s €1,000 face value – *i.e.*, 98.71875% or €987.1875. A bond may sell at a discount because its coupon is lower than prevailing interest rates in the marketplace, which means that in order to sell it, the holder must lower the price of the bond to make it competitive with other bonds in the market.

224. A bond’s price can also be quoted in terms of its yield. Bond price and yield have an inverse relationship: lowering one will result in a rise in the other, as demonstrated by Figure 5 below:

Figure 5 – Relationship Between Bond Price and Yield



225. This inverse relationship is due to the fact that a bond’s price will be higher when it pays a coupon that is higher than prevailing interest rates. As market interest rates increase, bond prices decrease. Because yield takes into account both a bond’s coupon and its price, yield can be an effective means to compare bonds with different coupons, prices, and terms to maturity.

V. DEFENDANTS' WRONGFUL CONDUCT

226. Defendants and their co-conspirators are among the world's largest dealers of European Government Bonds in the primary market and market makers in the secondary market. In a competitive market, they would compete with one another for customers seeking to buy and sell European Government Bonds. They would also compete with each other to acquire bonds during European Government Bond auctions.

227. However, rather than compete with one another, Defendants and their co-conspirators entered into an unlawful agreement to manipulate the European Government Bond auctions and fix the bid-ask spreads for European Government Bonds that they bought from and sold to investors.

228. Specifically, with respect to the European Government Bond auctions, Defendants conspired to raise bond prices (depress yields) of the European Government Bonds they acquired at auction. To do this, Defendants shared confidential, commercially sensitive information about their bidding interest and customer orders through multi-dealer electronic chatrooms, among other means. Sharing this information allowed Defendants and their co-conspirators to gain an understanding of overall interest in the auction and outbid their rivals, often by raising their bids above then-prevailing market prices in the pre-auction market. This conduct both shut out rivals and artificially inflated the auction-clearing prices for European Government Bonds, which then became the benchmark price for those securities in the secondary market.

229. Despite the relatively large, short-term cost of bidding up prices at European Government Bond auctions, Defendants were willing to bid up prices for two reasons. First, Defendants gained significant control over the supply of newly issued, in-demand European Government Bonds that they could then resell at a premium to investors in the post-auction, secondary market. Second, by obtaining consistently large shares of bond auctions, Defendants

were able maintain or increase their rankings with European Government Bond issuers, which in turn gave Defendants access to more lucrative syndications and derivatives deals, including interest rate swaps, with European Government Bond issuers. Thus, Defendants and their co-conspirators were willing to trade off large, albeit short-term, costs for the chance to secure even more lucrative rewards and colluded to ensure they obtained these rewards.

230. Defendants' misconduct was not limited to the primary market. They also fixed bid-ask spreads on customer orders for European Government Bonds in the post-auction, secondary market. Defendants orchestrated their bid-ask spread fixing primarily through multi-dealer electronic chatrooms, where Defendants' traders discussed customer orders, the bid and ask prices offered to customers seeking a quote, and the prices of executed trades. Client order information is highly sensitive, and sharing this information with competitors is considered grounds for termination.¹⁵

231. Exchanging this information is prohibited, yet profitable for the Defendants, because it alerts horizontal competitors to the prices at which customers are valuing bonds, allowing conspirators to raise their offers (in the case of a customer purchase) or lower their bids (in the case of a customer sale)¹⁶ to collect additional profits. This conduct caused a corresponding loss to Defendants' customers, who unknowingly transacted at prices fixed by Defendants instead of prices set by supply and demand.

232. Absent an agreement to manipulate the auctions or fix bid and ask prices, no individual bank could afford to engage in such conduct. Because of the high risks and costs

¹⁵ See, e.g., *Barclays Trader Fired Amid FX Probe Is Third to Lose Lawsuit*, Bloomberg Business, May 26, 2017.

¹⁶ An artificially raised ask price (or artificially lowered bid price) increases the difference between the bid and the ask (*i.e.*, the bid-ask spread). See Part IV. E above, and Part VI.B below.

associated with misjudging demand at an auction, no individual bank would attempt to unilaterally manipulate European Government Bond auction prices. If a Defendant bid for too much supply at too high of a price at an auction, it would be left with inventory that could not be sold except at a steep discount. And if a Defendant bid for too little supply at too low of a price at an auction, it would be potentially shut out, either partially or entirely. Both acts are costly in the short run. Bidding too much unnecessarily risks capital with little chance for profit (this is especially true in multi-price auctions, where the price bid is the price paid). Bidding too little causes a Defendant to lose allocation in the auction, forcing it to acquire supply in a potentially more expensive secondary market.

233. Either circumstance – over-bidding or under-bidding – could risk a dealer’s ranking (and potentially its primary dealer status), thereby jeopardizing its ability to gain more lucrative deals. Auction prices that move too high could cause prices to collapse in the secondary market, generating excessive volatility and making that issuer’s European Government Bonds less attractive relative to other fixed income assets. If a dealer misses out on an auction by failing to place sufficiently competitive bids, it could affect the dealer’s ranking with the issuer.

234. Similarly, no individual bank would widen its bid-ask spread unilaterally. To do so would result in that bank losing substantial trading business to competitors offering more competitive pricing. Further, consistently quoting non-competitive bid and ask prices would risk the bank’s lucrative position as a primary dealer in European Government Bonds.

235. According to the European Commission, European Government Bond traders “exchanged commercially sensitive information and coordinated on trading strategies. These contacts would have taken place mainly – but not exclusively – through online chatrooms.”¹⁷

236. As was the case in other financial market cartels, in these communications, Defendants’ traders exchanged confidential information about their customers’ identities and orders (including, among other things, size, direction, and price). By exchanging this sensitive customer information, the conspiring traders could coordinate the prices they submitted at primary market auctions and the bid and ask prices they offered to their respective customers in the secondary market. Defendants’ European Government Bond traders communicated with each other frequently. The repetitious nature of Defendants’ traders’ private chatroom discussions enabled them to both coordinate on pricing and effectively police their conspiracy. A conspiring bank’s trader who failed to adhere to agreed-upon pricing could quickly be identified and barred from any further participation in the chatrooms. Accordingly, the European Government Bond traders had little incentive not to adhere to their agreement.

237. By communicating with one another about aligning the prices and spreads they quoted to investors, Defendants also discouraged investors from comparing prices. Shopping around for better pricing was ultimately a pointless endeavor because the quotes received from one cartel member would be substantially similar to those offered by the other cartel member. From the customer’s perspective, the matching quotes suggested that the prices offered by any one cartel member were competitive. Unbeknownst to the customer, however, these prices were

¹⁷ European Commission, Press Release “Antitrust: Commission sends Statement of Objections in European government bonds cartel” (Jan. 31, 2019), http://europa.eu/rapid/press-release_IP-19-804_en.htm.

actually the product of collusion between the conspiring banks' European Government Bond traders.

238. As a result of Defendants' price-fixing agreement, investors, including Plaintiffs and the Class, either paid artificially high prices for European Government Bonds they bought or received artificially low prices for the European Government Bonds they sold, causing Plaintiffs and the Class injury to their business or property.

A. Defendants Shared Confidential, Commercially Sensitive Information in Advance of European Government Bond Auctions

239. As mentioned above, in advance of auctions for European Government Bonds, Defendants shared confidential, commercially sensitive information regarding their customer order flow house trades, and price marks, house trades, and price marks with their co-conspirators. Cooperation materials provided by a cooperating co-conspirator now provide direct evidence of Defendants carrying out their conspiracy through private electronic chatrooms, including one the co-conspirators named Cods and Chips, among others. The sample chats described below demonstrate that traders at competing banks shared commercially sensitive information about order flow and prospective bidding activity in upcoming European Government Bond auctions. As employees at competing institutions, none of these traders should have been sharing such information, lest they give their rivals a competitive advantage in the auction. Absent a reciprocal agreement among these traders to use the information exchange to their collective advantage, exchanging such information would be unprofitable and against their respective self-interests. Such conduct is, therefore, highly probative of a price-fixing conspiracy.

240. For example, September 27, 2011, traders from RBC Europe and State Street Bank and Trust [REDACTED]

[REDACTED]. This reflects impermissible coordination of bidding strategies among competing firms:

September 27, 2011

RBC Europe Trader 1: [REDACTED]
[REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]
[REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

RBC Europe Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

RBC Europe Trader 1: [REDACTED]
[REDACTED]

RBC Europe Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

RBC Europe Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

241. In the following November 2, 2010 chat that included UBS Limited, NatWest, and another co-conspirator, [REDACTED]

[REDACTED] traders from another co-conspirator

¹⁸ Terms in brackets in the chatroom conversations have been inserted based on interpretations of the slang used by the traders based on Plaintiffs' current understanding.

¹⁹ "Flattened" means that yields on short-term bonds rose relative to yields on long-term bonds. Such relative yield moves have price impacts.

and UBS Limited [REDACTED]
[REDACTED]

November 1, 2010

Co-Conspirator Trader 1: [REDACTED]
[REDACTED]

UBS Limited Trader 1: [REDACTED]

Co-Conspirator Trader 1: [REDACTED]
[REDACTED]

UBS Limited Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

Co-Conspirator Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

242. In an October 28, 2010 chat that took place in a chatroom the traders [REDACTED]

[REDACTED] a UBS Limited trader [REDACTED]

[REDACTED] with traders from NatWest, State Street Bank and Trust, and another co-conspirator [REDACTED] The

UBS Limited trader [REDACTED]
[REDACTED]
[REDACTED]

October 28, 2010

Co-Conspirator Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

State Street Bank and Trust Trader 1: [REDACTED]
[REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

243. In another chat, on December 9, 2011 traders from JP Morgan Securities, RBC Europe, UBS Limited, and State Street Bank and Trust [REDACTED]

[REDACTED] The trader from UBS Limited

[REDACTED] The UBS Limited
trader [REDACTED]

[REDACTED]

December 9, 2011

JP Morgan Securities Trader 1:²⁰ [REDACTED]
[REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

UBS Limited Trader 4: [REDACTED]

UBS Limited Trader 4: [REDACTED]

JP Morgan Securities Trader 1: [REDACTED]

UBS Limited Trader 4: [REDACTED]

UBS Limited Trader 4: [REDACTED]

UBS Limited Trader 4: [REDACTED]

JP Morgan Securities Trader 1: [REDACTED]

UBS Limited Trader 4: [REDACTED]

JP Morgan Securities Trader 1: [REDACTED]

²⁰ JP Morgan Securities Trader 1 was employed by JP Morgan Securities plc.

UBS Limited Trader 4: [REDACTED]

UBS Limited Trader 4: [REDACTED]

UBS Limited Trader 4: [REDACTED]

UBS Limited Trader 4: [REDACTED]

JP Morgan Securities Trader 1: [REDACTED]

UBS Limited Trader 4: [REDACTED]

UBS Limited Trader 4: [REDACTED]

RBC Europe Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

UBS Limited Trader 4: [REDACTED]

UBS Limited Trader 4: [REDACTED]

UBS Limited Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

244. In an April 4, 2011 chat, traders from Nomura International and another co-conspirator [REDACTED]

April 4, 2011

Nomura International Trader 2: [REDACTED]

Co-Conspirator Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]

245. As explained above, absent an agreement to fix prices, Defendants had no incentive to share proprietary, commercially sensitive information because doing so would have placed them

²¹ “Steepening” means that yields on short-term bonds fell relative to yields on long-term bonds. Such yield moves result in price impacts. Steepening is the opposite of flattening.

at a competitive disadvantage relative to their competitors. Yet, as these chats demonstrate, Defendants and their co-conspirators nonetheless shared confidential, commercially sensitive information in advance of the auction to benefit themselves at the detriment of their customers. Thus, these chats reflect Defendants' agreement to fix prices.

B. Defendants Shared Proprietary Information Regarding the Prices at Which They Bought and Sold European Government Bonds and Their Trading Positions and Customer Orders in the Secondary Market

246. Defendants also shared confidential information regarding their trading positions to coordinate their trading. By sharing trading positions, Defendants' traders alerted other members of the cartel to take similar positions and avoid trading in a manner that would cause market prices to move against each other. This conduct allowed Defendants to collect outsized trading profits at the expense of other market participants, including Plaintiffs and the Class. Defendants' traders communicated with each other frequently, discussing their positions in an open manner reflective of coworkers at the same bank, rather than competitors at different banks. Defendants' sharing of order flow was not limited to their own trading positions.

247. Defendants also regularly exchanged customer flow information. Order flow is highly sensitive information because it provides information on customer supply and demand for a bond, allowing a conspiring trader to adjust prices ahead of time and profit accordingly. This information would be closely guarded absent a conspiracy because a bank acting independently would instead use the information to its own benefit and for the benefit of its own customers, who also value this information for the same reasons. However, as the chats below demonstrate, Defendants' trader regularly shared order flow information because they understood that their co-conspirators would return the favor in the future.

248. Exchanging this information was especially significant given the nature of the European Government Bond Market. As explained in Part VIII, below, customers typically

execute large block transactions when buying and selling European Government Bonds. Customers typically spread out their trading activity when opening or closing a position over several bond issuances and several dealers to ensure that the customer gets a favorable price, often over the course of several days. Accordingly, Defendants' traders knew that a customer order was rarely a "one-off" trade, but instead a reliable signal that there would be investor demand for a bond (and similar European Government Bonds) in the near future. By engaging in this conduct, Defendants ensured that all would profit from the conspiracy while imposing additional costs on unsuspecting investors, who would have been outraged to learn that their bond dealer was secretly revealing their proprietary information to rival dealers so that this information could be used against the customer.

249. Although sharing order flow information was damaging in itself and caused artificial prices in the European Government Bond market for the reasons explained above, Defendants often went one step further and disclosed the specific prices at which their customers sought to trade. Sharing such pricing information was profitable for the Defendants because it revealed the specific prices at which customers were willing to trade bonds, allowing Defendants to adjust their bid prices lower or ask prices higher to collect additional profits when the customer requested a price from another Defendant. This conduct harmed all customers, in addition to the customer whose order was improperly shared among Defendants, because it enabled Defendants to offer higher ask prices or lower bid prices to any investor requesting a quote secure in the knowledge that there was investor demand for bonds at a given price level elsewhere in the market. The result of this conduct was higher ask prices (or lower bid prices), as reflected in an artificially wider bid-ask spread. This was a regular practice among Defendants' traders and came to be

expected among the group, as reflected in the example chats provided by the cooperating bank excerpted below.

250. In the following March 10, 2011 chat, a Nomura trader [REDACTED] [REDACTED] traders from UBS Limited, Nomura International, State Street, and NatWest. [REDACTED]

[REDACTED] As explained above, sharing the customers' information allowed the traders in the chatroom to capitalize on this information by adjusting their own pricing to collect additional profits. For example, the Nomura International trader's [REDACTED]

March 10, 2011

Nomura International Trader 2: [REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]

Nomura International Trader 2: [REDACTED]

Nomura International Trader 2: [REDACTED]

State Street Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]
[REDACTED]

NatWest Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

251. Similarly, in a March 16, 2011 chat, traders from UBS Limited, NatWest, State Street Bank and Trust, and Nomura International [REDACTED]

[REDACTED] NatWest Trader 1 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] UBS Limited Trader 1's [REDACTED]
[REDACTED]

March 16, 2011

Natwest Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

252. In a January 18, 2011 [REDACTED] traders from UBS Limited, NatWest, State Street, and another co-conspirator [REDACTED]
[REDACTED]
[REDACTED] State Street trader's [REDACTED]
[REDACTED]

[REDACTED] The trader at UBS Limited [REDACTED]

[REDACTED] The NatWest trader [REDACTED]

January 18, 2011

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]
[REDACTED]

Co-Conspirator Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

State Street Bank and Trust Trader 1: [REDACTED]

State Street Bank and Trust Trader 1: [REDACTED]

253. Similarly, on December 12, 2011, a State Street Bank and Trust trader asked traders from JP Morgan Securities and RBC Europe [REDACTED]

[REDACTED] As previously discussed, the European Government Bond market was opaque, [REDACTED]
[REDACTED]
[REDACTED]

December 12, 2011

State Street Bank and Trust Trader 4: [REDACTED]
[REDACTED]

JP Morgan Securities Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

RBC Europe Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

254. On February 4, 2011, a UBS Limited Trader [REDACTED] traders at Nomura International and NatWest [REDACTED]
Then the NatWest trader [REDACTED]
[REDACTED]

February 4, 2011

UBS Limited Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]
[REDACTED]

NatWest Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

255. Later in the same chat, traders from Nomura International, NatWest, and another co-conspirator [REDACTED]

[REDACTED] – reflecting improper coordination of bidding strategies among competing firms.

February 4, 2011

Nomura International Trader 2: [REDACTED]

Nomura International Trader 2: [REDACTED]

Nomura International Trader 2: [REDACTED]

Co-Conspirator Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]

NatWest Trader 1: [REDACTED]

Co-Conspirator Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]

NatWest Trader 1: [REDACTED]

Co-Conspirator Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]

256. In the following chat on April 13, 2011, a UBS Limited trader asked traders from NatWest, UBS Limited, and another co-conspirator [REDACTED]

[REDACTED] This sensitive information regarding positions and bidding should not have been shared among competitors.

April 13, 2011

UBS Limited Trader 1: [REDACTED]

NatWest Trader 1: [REDACTED]

Co-Conspirator Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

Nomura International Trader 1: [REDACTED]

257. On November 1, 2011, traders from Jefferies International and State Street Bank and Trust [REDACTED] The Jefferies International trader

[REDACTED]
[REDACTED]
[REDACTED]

Despite the two traders being competitors, the references to specific trade flow in real time highlights the collusive nature of the chat room.

November 1, 2011

Jefferies International Trader 1: [REDACTED]
[REDACTED]

Jefferies International Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]
[REDACTED]

Jefferies International Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

Jefferies International Trader 1: [REDACTED]

Jefferies International Trader 1: [REDACTED]

Jefferies International Trader 1: [REDACTED]

Jefferies International Trader 1: [REDACTED]

Jefferies International Trader 1: [REDACTED]

258. Defendants' traders also had standing agreements to exchange the "axes" for their respective trading desks. Axes refers to proprietary information about the desk's trading positions, including what bonds the bank intends to trade in the future, what bonds it has in inventory, and the prices at which it plans to trade. On October 26, 2010, a State Street Bank and Trust trader asked UBS Limited trader, [REDACTED] The UBS Limited trader [REDACTED]

[REDACTED] UBS Limited's [REDACTED]

[REDACTED] the State Street Bank and Trust trader [REDACTED]

[REDACTED] UBS Limited's [REDACTED] UBS Limited Trader 1:

October 26, 2010

State Street Bank and Trust Trader 1: [REDACTED]

UBS Limited Trader 3: [REDACTED]

UBS Limited Trader 3: [REDACTED]

State Street Bank and Trust Trader 1: [REDACTED]
out

State Street Bank and Trust Trader 1: [REDACTED]
[REDACTED]

UBS Limited Trader 3: [REDACTED]

UBS Limited Trader 3: [REDACTED]

UBS Limited Trader 3: [REDACTED]

State Street Bank and Trust Trader 1: [REDACTED]

State Street Bank and Trust Trader 1: [REDACTED]

UBS Limited Trader 3: [REDACTED]

UBS Limited Trader 3: [REDACTED]

259. On October 27, 2011, a Citigroup Global Markets Limited trader [REDACTED]
traders from UBS Limited, State Street Bank and Trust, and another co-conspirator [REDACTED]
[REDACTED] Then the co-
conspirator trader [REDACTED] the Citigroup Global Markets Limited trader [REDACTED]
[REDACTED] the Citigroup Global Markets Limited trader [REDACTED]
[REDACTED] The co-conspirator trader [REDACTED]
[REDACTED]

October 27, 2011

Citigroup Global Markets Limited Trader 1: [REDACTED]

Citigroup Global Markets Limited Trader 1: [REDACTED]
[REDACTED]

Citigroup Global Markets Limited Trader 1: [REDACTED]

Co-Conspirator Trader 2: [REDACTED]
[REDACTED]

Citigroup Global Markets Limited Trader 1: [REDACTED]
[REDACTED]

Co-Conspirator Trader 3: [REDACTED]

UBS Limited Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

Co-Conspirator Trader 3: [REDACTED]
[REDACTED]

Co-Conspirator Trader 3: [REDACTED]
[REDACTED]

Citigroup Global Markets Limited Trader 1: [REDACTED]
[REDACTED]

260. As these sample chats demonstrate, Defendants' traders exchanged proprietary pricing information, shared confidential information regarding their order flow, and improperly coordinated trading positions as part of their agreement to fix prices of European Government Bonds.

261. As described above, Defendants' traders exchanged confidential information about their customers' identities and orders (including, among other things, size, direction, and price). By exchanging this sensitive customer information, the conspiring traders were able to coordinate trading strategies in the secondary market. Clients were identified either by name or by code names that were known among the group.

262. For example, in a December 7, 2011 chat, traders from JP Morgan Securities, RBC Europe, UBS Limited, and State Street Bank and Trust [REDACTED]
[REDACTED]
[REDACTED] the JP Morgan Securities trader [REDACTED] the UBS Limited and State Street Bank and Trust traders [REDACTED] These trading strategies and confidential customer flow in the secondary market should not be shared by competitors.

December 7, 2011

JP Morgan Securities Trader 1: [REDACTED]
[REDACTED]

JP Morgan Securities Trader 1: [REDACTED]

JP Morgan Securities Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

UBS Limited Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

UBS Limited Trader 4: [REDACTED]

263. In a March 18, 2011 chat, a UBS Limited trader [REDACTED] Nomura International trader [REDACTED] Then UBS Limited

[REDACTED] the Nomura International trader. [REDACTED]

[REDACTED] the Nomura International trader

[REDACTED] the Nomura International

trader [REDACTED] These offline discussions were commonplace among Defendants' traders. Finally, the Nomura International trader [REDACTED]

March 18, 2011

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]

Nomura International Trader 2: [REDACTED]

UBS Limited Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

UBS Limited Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]

UBS Limited Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]

State Street Bank and Trust Trader 1: [REDACTED]

Nomura International Trader 2: [REDACTED]

264. On November 2, 2011, a UBS Limited trader [REDACTED]

[REDACTED] The RBC Europe trader [REDACTED]

[REDACTED] This improper sharing of confidential proprietary customer trade was typical in these private group chats.

November 2, 2011

UBS Limited Trader 4: [REDACTED]

RBC Europe Trader 1: [REDACTED]

UBS Limited Trader 4: [REDACTED]

RBC Europe Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

UBS Limited Trader 4: [REDACTED]

265. On November 4, 2011, traders from RBC Europe and State Street Bank and Trust

[REDACTED] The State Street Bank and Trust trader [REDACTED]

[REDACTED]

[REDACTED]

November 4, 2011

State Street Bank and Trust Trader 4: [REDACTED]

[REDACTED]

RBC Europe Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

RBC Europe Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

[REDACTED]

RBC Europe Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

266. Two days later, on November 6, 2011, the State Street Bank and Trust trader and the Jefferies International trader [REDACTED]

[REDACTED]

[REDACTED]

November 6, 2011

Jefferies International Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

Jefferies International Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

Jefferies International Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

267. On December 9, 2011, traders from RBC Europe, JP Morgan Securities, UBS Limited, and State Street Bank and Trust [REDACTED]

[REDACTED]
RBC Europe [REDACTED]

[REDACTED] the State Street Bank and Trust trader [REDACTED]

[REDACTED] The State

Street Bank and Trust trader [REDACTED]

[REDACTED]

December 9, 2011

RBC Europe Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

JP Morgan Securities Trader 1: [REDACTED]

JP Morgan Securities Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

JP Morgan Securities Trader 1: [REDACTED]

RBC Europe Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

RBC Europe Trader 1: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

State Street Bank and Trust Trader 4: [REDACTED]

268. As demonstrated above, Defendants' European Government Bond traders intended to and did use chat rooms to communicate with each other frequently detailing specific, contemporaneous, and confidential information relating to their own trading positions and strategies and customer orders and transactions. The repetitious nature of Defendants' traders' chatroom discussions enabled them to both coordinate on pricing and trading strategies and effectively police their conspiracy, which caused Plaintiffs and the Class, either to either pay artificially high prices for European Government Bonds they bought or receive artificially low prices for the European Government Bonds they sold, causing Plaintiffs and the Class injury to their business or property.

VI. ECONOMIC ANALYSES ARE CONSISTENT WITH THE EUROPEAN COMMISSION'S FINDINGS THAT DEFENDANTS CONSPIRED TO FIX EUROPEAN GOVERNMENT BOND PRICES

269. Consistent with the European Commission's findings, Plaintiffs have uncovered statistically significant evidence of collusion among Defendants and their co-conspirators in both the primary and secondary markets for European Government Bonds.

A. Defendants and Their Co-Conspirators Rigged European Government Bond Auctions in Their Favor

270. Plaintiffs uncovered anomalous pricing in the European Government Bond market around auctions during the Class Period by analyzing the price of French and Italian 10-year bonds. This analysis showed that primary dealers abused their market share to control the supply (and thus the price) of newly issued European Government Bonds in the secondary market by coordinating their bidding in government-run auctions.

271. French and Italian 10-year bonds are among the largest Eurozone government debt offerings by size of outstanding debt. In 2012, France and Italy had 23% and 24% of the total outstanding debt in the Eurozone, respectively. Together, France and Italy constitute nearly half of the 10-year maturity sector in the European Government Bond market.

Figure 6 – Outstanding Government Debt Percentage in the Eurozone

Country	Government debt in percentage
Germany	25%
Italy	24%
France	23%
Spain	9%
Belgium	5%
Netherlands	5%
Other	9%
Total	100%

272. The 10-year maturity is used as the benchmark in the Eurozone and is also the most liquid in the European government debt market. As the most liquid maturity of European Government Bonds, the 10-year bond market is the most difficult to manipulate.

273. Plaintiffs’ allegations and claims are not limited to collusion in France and Italy, but include all Eurozone countries during the Class Period. The allegations relating specifically to France and Italy are merely illustrative. The other Eurozone countries hold similar auction processes organized by a central debt management office, in which only a small and select group of primary dealers participate. The incentives and privileges offered by other Eurozone countries to primary dealers for achieving a high ranking are the same or similar to the incentives offered by France and Italy, as discussed above. And the bonds of other Eurozone countries are traded by the same trading desks of Defendants to the same customers using the same platforms.

274. Plaintiffs’ analysis started by converting the price of each bond traded in the “when issued” market – where Defendants and other dealers can trade bonds in advance of their issuance

– from percentage price terms (*e.g.*, 101.05%) to reflect its Yield-To-Maturity (or “YTM”). A bond’s YTM reflects the total return on that bond if it is held to maturity as an annual percentage (*e.g.*, 4.73%) and allows bonds to be compared on an apples-to-apples basis with each other.

275. Next, Plaintiffs examined the market behavior for each of the more than 150 Italian and French 10-year bond auctions during the Class Period around the specific auction time.

276. Figure 7 below is an example showing the evolution of the YTM before, during, and after an auction for one of the 10-year Italian bonds in the sample. On the plot, the series (1) represents the market yield of the bond with ISIN IT0004164775, coupon of 4%, which was auctioned on June 11, 2010. The timescale is two days: the day preceding the auction (5) and the day of the auction (6). The plot shows the yield at which the bond was auctioned as the horizontal line (2), and the vertical line (3) marks the exact time of the auction. Additionally, (4) denotes the market yield of the bond at the time it is being auctioned, which is referred to as “Market Yield” on the graph (3.391), and subtracting this from (2), the “Auction Yield” (3.32), results in the difference between the two (-0.071).

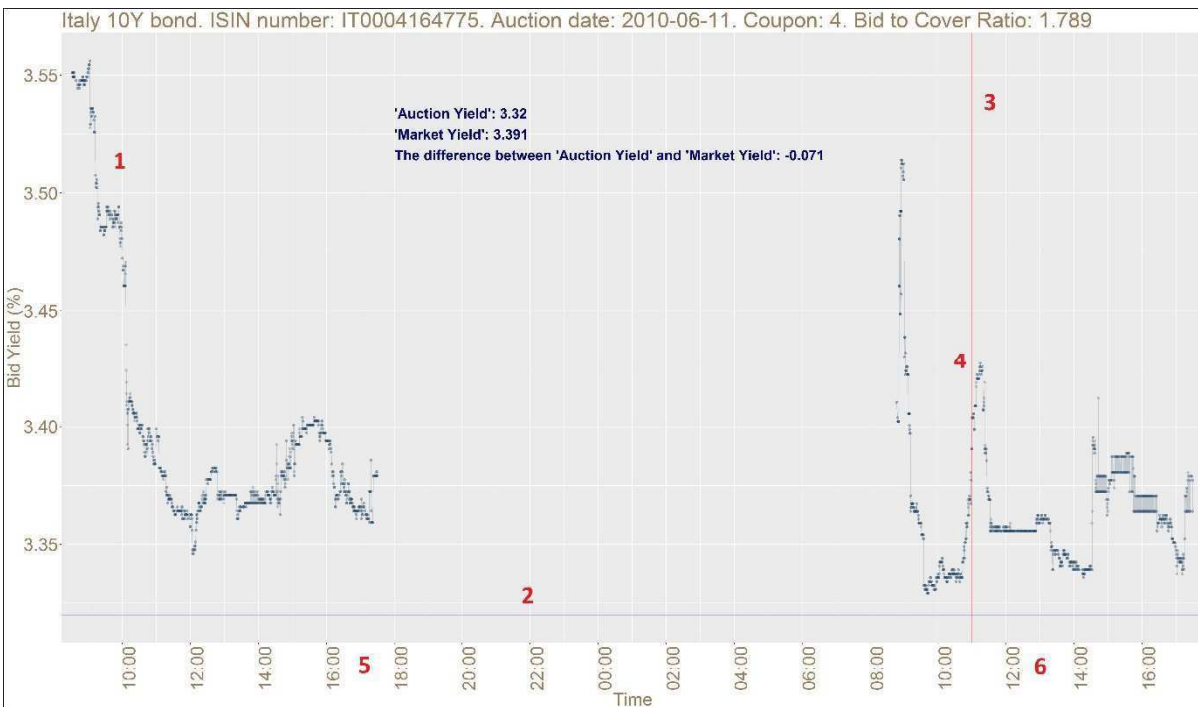


Figure 7: Evolution of yield for an Italian 10-year bond

277. As Figure 7 shows, when trading begins at 8:00 a.m. on the auction day, the YTM for this bond is significantly higher (meaning the price is lower) than the day before. The YTM then suddenly begins to drop and prices rise until around 10:00 a.m. when there is a sudden change in direction in the hour prior to the start of the auction. Despite this reversal, the Auction Yield is significantly below (meaning the price is higher than) the fair market value for that bond in the when issued market.

278. Identical, anomalous market behavior was also observed around auctions for 10-year French government bonds, as illustrated by Figure 8 below.

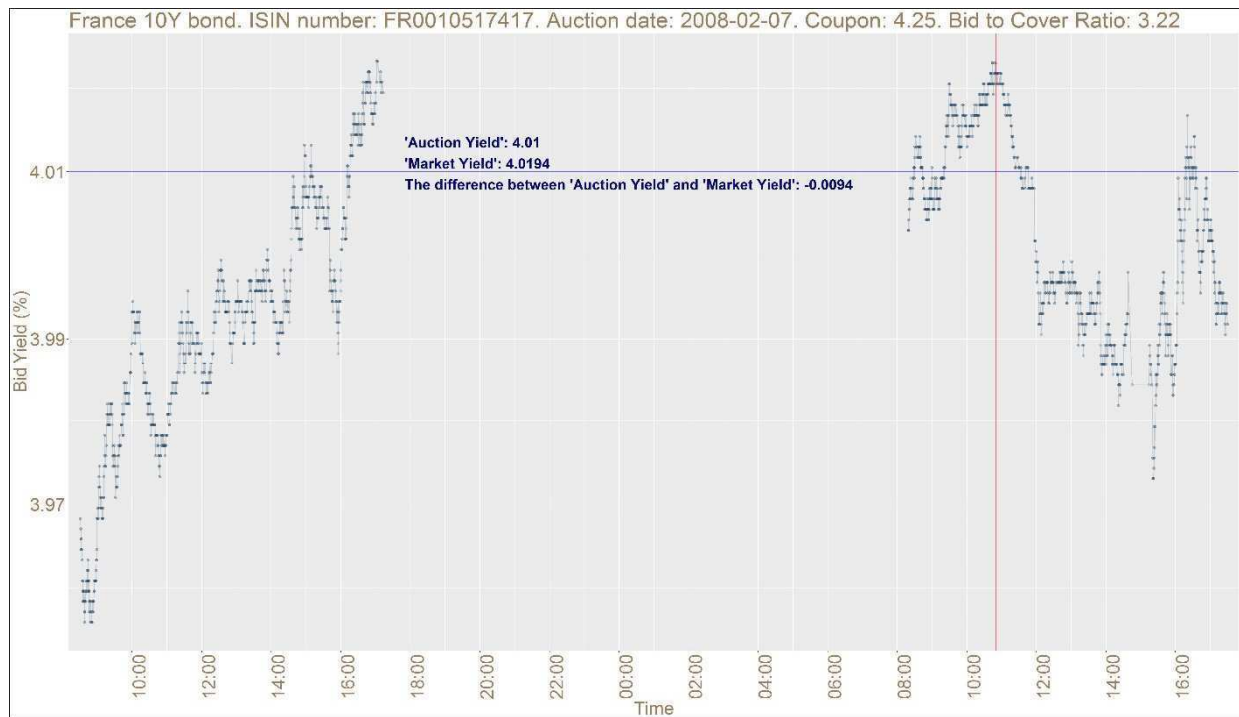


Figure 8: Evolution of yield for a French 10-year bond

279. The observations in the examples above were not the product of any change in macroeconomic conditions affecting European Government Bond markets generally. These movements were specific to these bonds.

280. This pattern in which primary dealers act against their short-term economic self-interest by overbidding for European Government Bonds occurred in the vast majority of the more than 150 Italian and French 10-year bonds auctions during the Class Period and is consistent with a conspiracy to rig the auction process so that Defendants and their co-conspirators can control supply to the secondary market by receiving a dominant share of the newly issued bonds.

281. Defendants profit from this conspiracy in at least two ways. First, as Figures 7 and 8 show, following the auction, bond prices increase considerably (and yields decrease), as the YTM moves past the Auction Yield and prices remain higher throughout the trading day. Significantly, this price increase is highly correlated with the amount Defendants and their co-conspirators overbid during the auction. Thus, by coordinating bids during the auction to

guarantee they receive a high allocation of these newly issued bonds, Defendants and their co-conspirators profit by selling those bonds at artificially inflated prices reflecting the amount they overbid during the auction to investors in the secondary market.

282. Second, as explained above, Defendants and their co-conspirators generate additional illicit profits by working together to maintain or increase their performance rankings, which in turn, determine their eligibility for additional business from the issuers. This presents a win-win situation for Defendants and their co-conspirators, notwithstanding the high cost of submitting inflated bids at the auctions: profits immediately following the auction and long-term gains from additional business awarded as a result of their ranking.

283. While the charts above present individual examples, this same pattern is observed in aggregate across the different 10-year French and Italian bonds auctioned during the Class Period. For this analysis, Plaintiffs compared the prevailing market YTM for each bond at the time of the auction to the prevailing market YTM at seven different points during the day of the auction and previous trading day.

284. Figure 9 below displays these results for all 10-year Italian bonds issued during the Class Period.

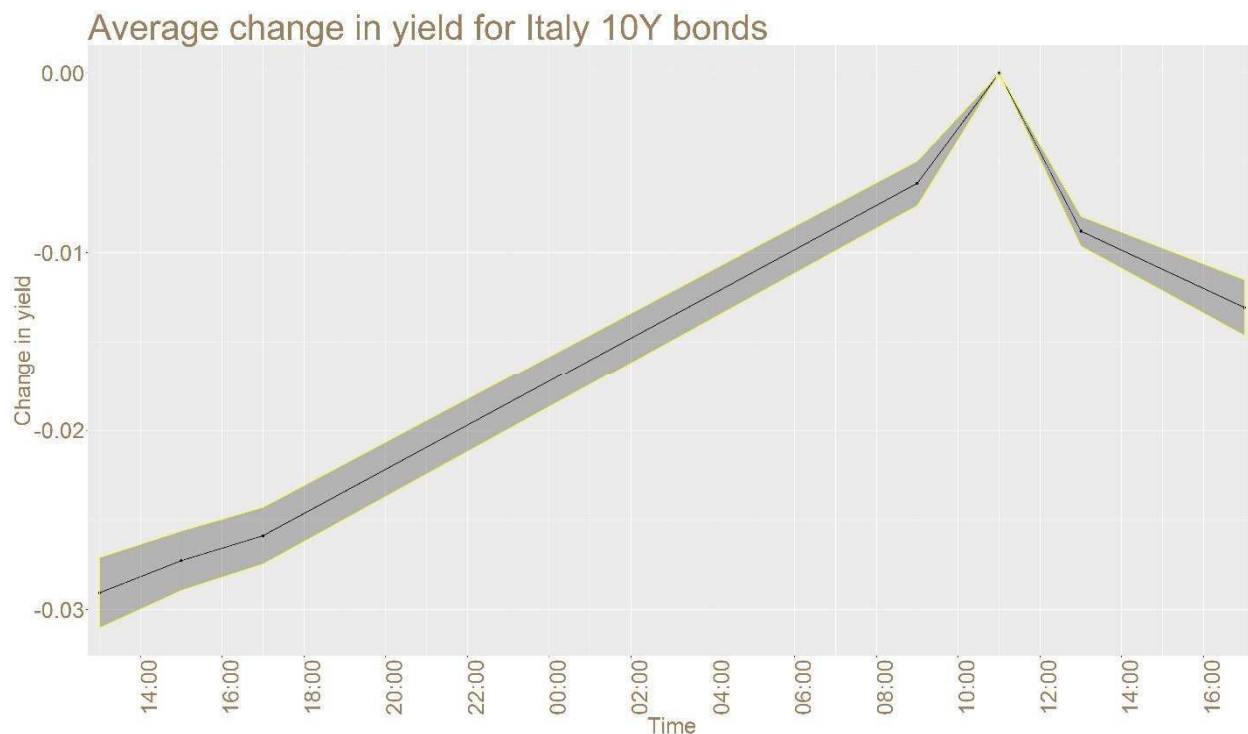


Figure 9: Evolution of X_t for Italian 10-year bonds

285. As Figure 9 above shows, there is a sharp reversion following the auction in which the average YTM for 10-year Italian bonds retraces back to where it was before the auction. This is indicative of collusion because, if the price established by the auction truly reflected the fair market value of that bond, then the sharp inverted “V” pattern would not be observed.

286. Figure 10 below, which depicts the French bond market, shows the same reversion pattern seen in the 10-year Italian bonds.

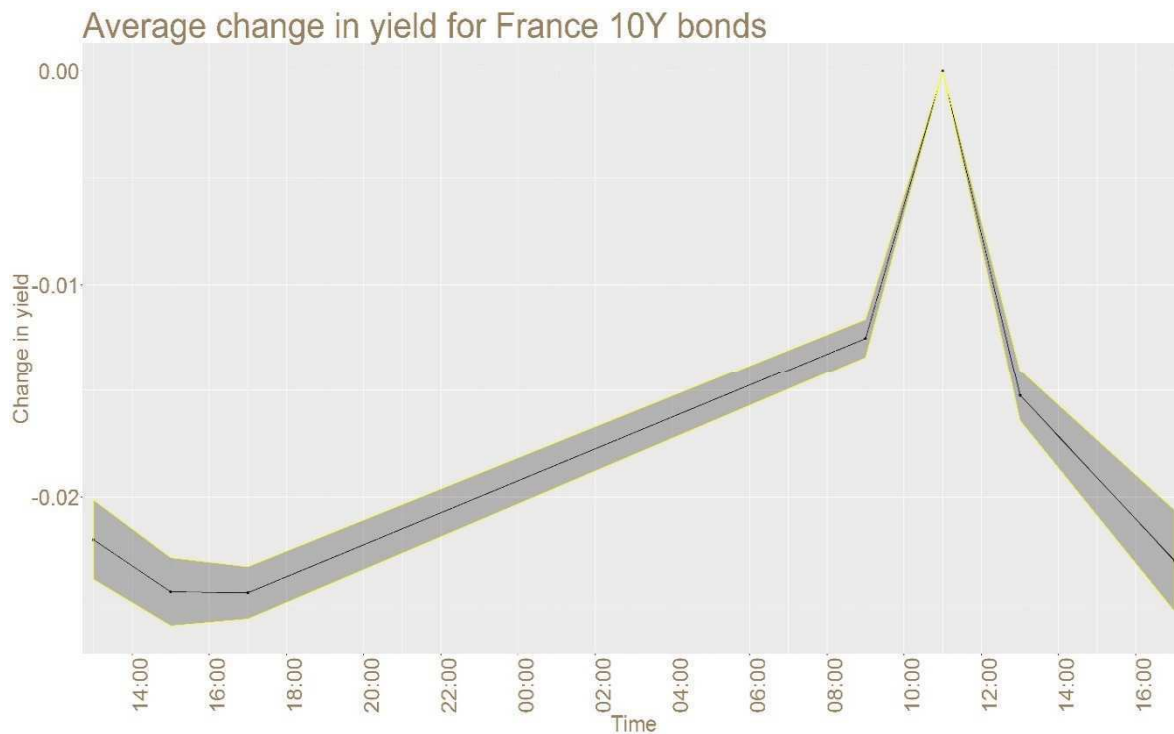


Figure 10: Evolution of X_t for French 10-year bonds

287. As explained above, this reversion pattern is not what is expected in a competitive market and indicative of collusion because, if the price of 10-year French bonds at the time of the auction were the fair value, then a mean-reversion in yield/price immediately after the auctions would not be observed.

288. Defendants' manipulation of European Government Bond auctions artificially raised the auction-clearing prices. The auction-clearing price sets the benchmark price for the newly issued ("on-the-run") European Government Bond trading in the secondary market after the auctions. Accordingly, as a direct result of Defendants' manipulation of the European Government Bond auctions, investors, including Plaintiffs and Class members, purchasing European Government Bonds post auction paid supracompetitive prices for their European Government Bonds.

B. Defendants Conspired to Fix Bid-Ask Spreads in the Secondary Market

289. Defendants' conspiracy was not limited to restraining the European Government Bond market in and around auctions. As noted above, the European Commission's Statement of Objections found that Defendants' conspiracy involved *both* acquiring *and* trading European Government Bonds. Plaintiffs identified statistical evidence consistent with Defendants' conspiracy to fix prices in the secondary market.

290. Defendants' collusion in and around auctions depended on their ability to also restrain the secondary market because primary dealers, including MLI, Natixis, NatWest, Nomura International PLC, UBS Europe SE, UniCredit Bank AG, State Street, RBC Europe, Citigroup Global Markets Limited, JP Morgan Securities, and Jefferies International are also responsible for generating profits from their primary dealerships by collecting trading revenues from customers in the secondary market. For their European Government Bond business to be profitable, each Defendant needed to, and did, recoup the costs of colluding in the European Government Bonds auctions by charging collusively set and artificially inflated prices to investors in the secondary market.

291. Offsetting the costs of participating in auctions by charging fixed prices in the secondary markets was especially important for the Primary Dealer Defendants' traders because their compensation and advancement was based in substantial part on trading revenues. Moreover, charging supracompetitive prices to customers in the secondary market became increasingly important to Defendants during the middle of the Class Period, when European governments began issuing record amounts of bonds that Defendants were required to absorb in inventory to fulfill their obligations as primary dealers. *See* Section VIII, below.

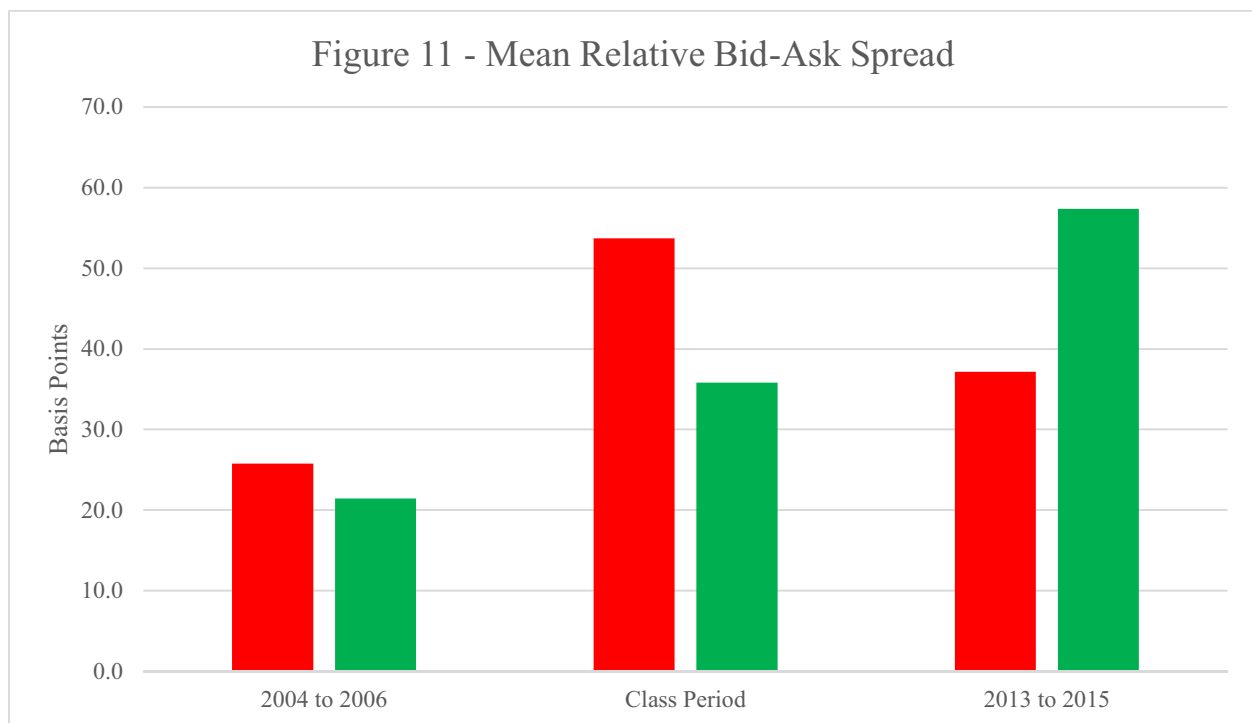
292. Plaintiffs analyzed all available price quotes for European Government Bonds issued by Italy during the Class Period for which it was possible to identify the dealer who supplied the quote. Plaintiffs selected European Government Bonds issued by Italy for several reasons.

293. **First**, the data for European Government Bonds issued by Italy was especially robust, containing more than one billion individually identifiable price quotes. This is likely due to the Italian Treasury's implementation of certain transparency measures over Defendants' concerted objections, namely a mandatory post-trade reporting system that collected information about secondary market bond transactions. As discussed below, Defendants' joint lobbying efforts successfully defeated numerous other similar pro-transparency measures proposed by other countries and the European Union during the Class Period. As a result, publicly available data for European Government Bonds issued by other Eurozone members is much more limited, and in most cases, anonymous.

294. **Second**, nine Defendants are primary dealers of Italian government bonds. The remaining Defendants also actively quoted prices to investors for European Government Bonds issued by Italy during the Class Period from their respective European Government Bond trading desks, along with European Government Bonds issued by other Eurozone countries. Accordingly, the data included millions of price quotes specifically attributable to each Defendant (except for State Street and RBC Europe) during the period covered by the analysis, *i.e.*, January 1, 2004 through December 31, 2015. This made it possible to reliably compare Defendants' pricing behavior to that of other dealers for European Government Bonds issued by Italy, providing a sound basis for measuring the impact of Defendants' conduct on prices paid by European Government Bond investors during the Class Period.

295. Plaintiffs began their analysis by adjusting the bid-ask quotes in the sample to account for the different amounts of bonds (*e.g.*, €100,000 vs. €10,000,000) reflected in each quote. Using this “relative bid-ask spread” ensures that differences in the value of bonds quoted do not affect the analysis. Next, Plaintiffs compared the relative bid-ask spread in Defendants’ price quotes to those of non-Defendant dealers before, during, and after the Class Period.

296. Figure 11 displays these results, with the red bars representing the average relative bid-ask spread quoted by Defendants and the green bars representing the average relative bid-ask spread for quotes by non-Defendant dealers on Italian government bonds.

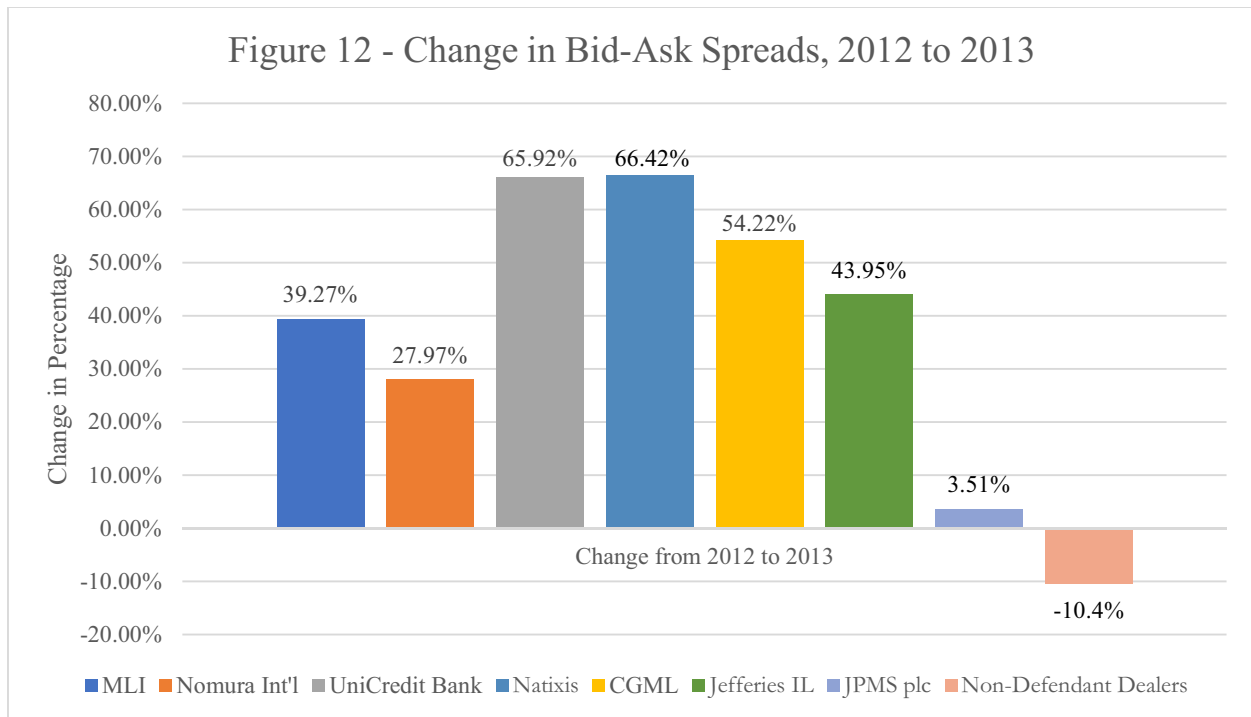


297. Figure 11 shows that the average relative bid-ask spread quoted by Defendants during the Class Period was 17.9 basis points – or **50%** – **wider** than the average relative bid-ask spread quoted by non-Defendant dealers during the Class Period, when the European Commission reported that it found evidence of collusion among dealers in the secondary market for European Government Bonds.

298. The significance of Defendants' pricing behavior during the Class Period is only highlighted by the stark contrast between their conduct during the pre- and post-Class Period. After the end of the Class Period, the average relative bid-ask spread quoted by Defendants for Italian government bonds was 20.2 basis points – or ***more than 44%*** – ***narrower*** than the average relative bid-ask spread quoted by non-Defendant dealers.

299. A similar pattern is observed prior to the start of the Class Period when the average relative bid-ask spread quoted by Defendants for Italian government bonds was 25.8 basis points – only 4.31 basis points wider than the average relative bid-ask spread quoted by non-Defendant dealers. The average relative bid-ask spread of Defendants' quotes then widens substantially during the Class Period, when the bid-ask spread quoted by Defendants more than doubles to 53.7 basis points – significantly more than the 35.8 basis point bid-ask spread observed in quotes by non-Defendant dealers. The relatively narrow bid-ask spreads observed in Defendants' quotes during the post- and pre-Class Period are consistent with competition in the European Government Bond market as Defendants and other primary dealers offered better prices to investors to win their business.

300. Plaintiffs also analyzed the changes in bid-ask spreads reflected in individual Defendant's quotes between 2012 and 2013. Next, Plaintiffs calculated the change in the average relative bid-ask spread in quotes by non-Defendant dealers of European Government Bonds issued by Italy. Plaintiffs then compared the change in the average bid-ask spread in Defendants' quotes with the change in the bid-ask spreads in non-Defendants' quotes. These results are displayed in Figure 12, below.



301. This analysis showed that each Defendant for which quotes were available between 2012 and 2013 quoted substantially *narrower* bid-ask spreads in 2013 than in 2012.²² Figure 12, above, shows these differences for MLI (the blue bar), Nomura (the orange bar), UniCredit (the grey bar), Natixis (the teal bar), Citigroup Global Markets Limited (the yellow bar), Jefferies International Limited (the green bar), and J.P. Morgan Securities plc (the light blue bar). This observation is inconsistent with the quoting behavior of non-Defendant European Government Bond dealers, which actually quoted *wider* bid-ask spreads in 2013 compared to 2012, as reflected by the pink bar. *See* Figure 12, above.

302. The analysis also shows that the significant change in bid-ask spreads in Defendants' quotes was highly abnormal. The bid-ask spread changes reflected in Defendants'

²² Quote data was available for Nomura, UniCredit, Natixis, MLI, Citigroup Global Markets Limited, J.P. Morgan Securities plc, and Jefferies International Limited during 2012 and 2013. Quote data was not available for NatWest, UBS, RBC Europe, or State Street during this time period. In Figure 12, Citigroup Global Markets Limited is referred to as "CGML," Jefferies International Limited is referred to as "Jefferies IL," and J.P. Morgan Securities plc is referred to as "JPMS plc."

quotes cannot be explained by any structural changes that occurred between 2012 and 2013. As the pink bar in Figure 12 illustrates, the average change in bid-ask spreads in quotes from 2012 to 2013 from non-Defendant dealers of European Government Bonds issued by Italy was negative 10.40%.

303. Accordingly, this analysis shows that at the end of the Class Period, MLI, Nomura, UniCredit, Natixis, Citigroup Global Markets Limited, Jefferies International Limited, and J.P. Morgan Securities plc each substantially, and collectively narrowed their pricing for European Government Bonds.

304. This parallel change in quoting behavior by each of these Defendants after the end of the Class Period suggests that Defendants conspired to maintain artificially wide bid-ask spreads during the Class Period, the time during which the European Commission found that the conspiracy was in effect.

305. These Defendants' quoting behavior is consistent with the example chats alleged in Part V, above. The European Government Bond market is characterized by large market-moving block purchases, in which institutional investors tend to break up their orders among multiple dealers. *See* Part VIII, below (explaining that the market is "dominated by large players executing large transactions" with an average customer order of 18 million euros). Therefore, when one European Government Bond dealer informs a group of other dealers that a customer is willing to pay (or receive, if a customer is selling) a given price for European Government Bonds, the other dealers know not to quote an ask price any lower (or bid price any higher) when the same customer calls them to request a price. The result is Defendants' routine sharing of price and order information caused inflation of ask prices and suppression of bid prices during the Class Period, reflected as wider bid-ask spreads.

306. Accordingly, Defendants’ conspiracy caused Plaintiffs and the Class to pay artificially higher prices when purchasing European Government Bonds (represented by the “ask” price quoted by Defendants) and receive artificially lower prices when selling European Government Bonds (represented by the “bid” price quoted by Defendants) during the Class Period.

VII. INVESTIGATIONS INTO EUROPEAN GOVERNMENT BOND MARKET CARTEL

307. For years, the European Commission has been investigating potential cartel behavior in various sectors of the financial market, including the European Government Bond market.

308. On January 31, 2019, following an extensive investigation, the Commission issued a Statement of Objections, which is a charging instrument that reflects the Commission’s preliminary view that an entity (or group of entities) violated the European competition laws. In a press release describing the Statement of Objections, the Commission alleged that “eight banks participated in a collusive scheme that aimed at distorting competition when acquiring and trading European government bonds (‘EGBs’). Traders employed by the banks exchanged commercially sensitive information and coordinated on trading strategies. These contacts would have taken place mainly – but not exclusively – through online chatrooms.”²³

309. The Commission’s press release noted that if its “preliminary view were confirmed, such behaviour would violate EU rules that prohibit anticompetitive business practices such as collusion on prices (Article 101 of the Treaty on the Functioning of the European Union and Article 53 of the EEA [European Economic Area] Agreement).”²⁴

²³ European Commission, Press Release, “*Antitrust: Commission sends Statement of Objections in European government bonds cartel*” (Jan. 31, 2019), http://europa.eu/rapid/press-release_IP-19-804_en.htm.

²⁴ *Id.*

310. Both Article 101 and Article 53, in their respective provisions on price collusion, prohibit “all agreements between undertakings, decisions by associations of undertakings and concerted practices which . . . directly or indirectly fix purchase or selling prices or any other trading conditions.”

311. Although the Statement of Objections did not identify the targets of the Commission’s investigation, media and other reports have disclosed that Defendants Bank of America, RBS, Natixis, Nomura, UBS, State Street, and UniCredit were among the eight banks that received the Commission’s Statement of Objections.

312. According to the Commission, a Statement of Objections is issued once fact-finding is complete to “inform[] the parties concerned in writing of the objections raised against them.”²⁵ Further, the Commission prepares the Statement of Objections “in view of the nature and structure of the final decision that might be adopted.”²⁶

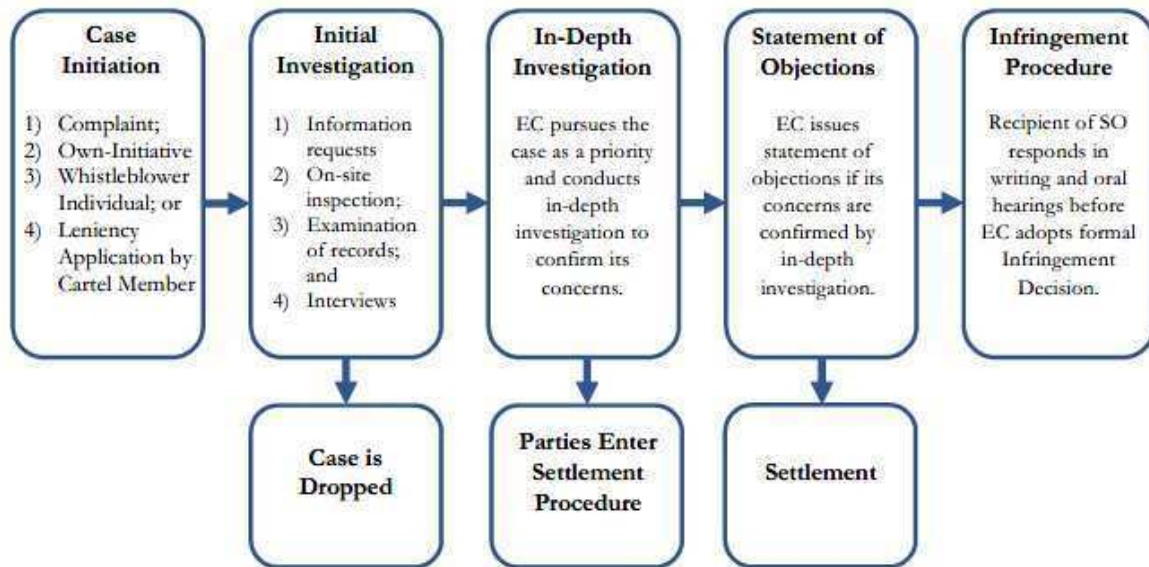
313. To investigate a potential action, the Commission’s investigative powers allow it to: (a) send information requests to companies believed to have engaged in anticompetitive conduct; (b) conduct on-site inspections of a company’s premises; (c) examine a company’s business records; (d) remove copies of those records from the premises; and (e) ask members of staff or company representatives questions relating to the subject matter and purpose of the inspection and record the answers.²⁷

314. The Commission’s investigation process is outlined in Figure 13, below.

²⁵ *Id.*

²⁶ *Antitrust Manual of Procedures, Internal DG Competition working documents on procedures for the application of Articles 101 and 102 TFEU*, at 4, EUROPEAN COMMISSION (Mar. 2012), http://ec.europa.eu/competition/antitrust/antitrust_manproc_3_2012_en.pdf.

²⁷ European Commission, Article 20(2) of Regulation No. 1/2003, ¶4 (Sept. 11, 2015) http://ec.europa.eu/competition/antitrust/legislation/explanatory_note.pdf.

Figure 13 – European Commission’s Case Investigation Process

315. If the Commission confirms the violation, the target banks could be subject to fines equal to 10% of the banks’ global revenues.

316. More recently, in October 2019, a closed-door hearing was held in which the recipients of the Commission’s Statement of Objections appeared before the Commission to discuss the charges against them. According to reports, some Defendants have also received a “Letter of Facts” that sets out new evidence against them.

VIII. THE EUROPEAN GOVERNMENT BOND MARKET STRUCTURE SUPPORTS THE EXISTENCE OF A EUROPEAN GOVERNMENT BOND CARTEL

317. Notwithstanding Plaintiffs’ allegations showing Defendants’ actual conspiratorial communications – which themselves are sufficient to show the existence of Defendants’ conspiracy to fix, raise, maintain, or stabilize the prices of European Government Bonds – additional features of the European Government Bond market support the inference of concerted action by Defendants to fix, raise, maintain, stabilize, or otherwise manipulate the prices of European Government Bonds.

318. **First**, Defendants, as primary dealers for European Government Bonds, wield enormous power in the European Government Bond market because “most bonds in the auctions are bought by a relatively small number of primary dealers.”²⁸ European central governments and other market participants rely on Defendants to make markets and provide liquidity for European Government Bonds – *i.e.*, to stand ready to trade European Government Bonds with anyone, at any time.

319. With power concentrated in the hands of a relatively small number of dealers and significant financial incentives for conspiring, the conspiring banks were able to form and maintain their cartel.

320. **Second**, the European Government Bond market has high barriers to entry. Other entities cannot easily enter the primary dealer market because serving as a primary dealer is capital-intensive – requiring dealers to bid at auctions and hold European Government Bonds until they are sold to investors and to conduct market-making activities in the secondary market. A dealer must have a large balance sheet and sufficient capital reserves to absorb new European Government Bond inventory as it becomes available for purchase by investors. This is significant because banks are required to maintain minimum capital ratios to ensure solvency in case any of the bank’s assets devalue, and therefore are selective about where they deploy capital.

321. The Bank for International Settlements, a policy and research organization owned by 60 of the world’s leading central banks, explained that barriers to entry for prospective dealers in OTC markets like the European Government Bond market include:

²⁸ Roel Beetsma, *et al.*, *Price Effects of Sovereign Debt Auctions in the Euro-Zone: The Role of the Crisis*, at 6, Working Paper Series (No. 1595) (Sept. 2013), <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1595.pdf>.

a sufficiently large client base to get a good view of the flow of orders; the capacity to take on large principal positions; continuous access to multiple markets, including funding and hedging markets; the ability to manage risk, especially the risk of holding assets in inventory; and market expertise in providing competitive quotes for a range of securities.²⁹

322. **Third**, the structure of the primary and secondary markets for European Government Bonds was susceptible to collusion. As the largest players among the exclusive group of entities qualified to bid at auctions for European Government Bonds, Defendants and their co-conspirators possessed significant power over the supply of bonds to the market and the prices they were sold at. Defendants and their co-conspirators knew that there would be a new supply of bonds in the market and that together they would own the entire supply of these bonds. They also knew that investors, like Plaintiffs and the Class, would be forced to buy European Government Bonds from them in the secondary market because investors do not have direct access to the interbank market. By virtue of their positions as market makers in the secondary market as well, Defendants and their co-conspirators controlled the pricing of European Government Bonds before, during, and after the auctions.

323. The European Government Bond market is also characterized by very large, relatively infrequent customer transactions. For example, the average size of a customer transaction during the Class Period reached a record high of 18 million euros (up from 10 million euros in 2006). This is significantly larger than the typical transaction size in other fixed-income markets. Researchers reported that European Government Bond trading was “dominated by large players executing large transactions” during the Class Period.³⁰ Further, the relatively lower

²⁹ BIS Quarterly Review, *International banking and financial market developments*, at 99 (March 2015), https://www.bis.org/publ/qtrpdf/r_qt1503.pdf.

³⁰ Hassen Chtourou, *Analysis of the European Government Bonds and Debt after the European Financial Crisis*, J. OF CENTRUM CATHEDRA: THE BUS. AND ECON. RES. J., Vol. 8 Issue: 2, at 148 (2015).

volume of transactions, as compared to other fixed income products, allowed Defendants to monitor more easily and to police the quoting behavior of their co-conspirators.

324. Additionally, investor participation in the European Government Bond market is marked by fairly routine, predictable trading schedules. Certain U.S. pension and investment funds holding European Government Bonds have investment mandates that require periodic rebalancing of fixed income portfolios to address fluctuations in the credit and interest rate risk of their investments. This rebalancing can include, among other things, the purchase of newer (*i.e.*, on-the-run) European Government Bond issues and the sale of older (*i.e.*, off-the-run) European Government Bond issues. Rebalancing generally occurs at regular monthly or quarterly intervals. These predictable trading patterns by investors facilitated Defendants' coordination of prices to investors seeking to buy and sell European Government Bonds.

325. By virtue of their positions as market makers in the secondary market as well, Defendants and their co-conspirators controlled the pricing of European Government Bonds before, during, and after the auctions.

326. ***Fourth***, pre-trade price discovery for non-dealers in the European Government Bond market is difficult. There is no central, all-to-all, exchange where dealers and non-dealers alike can see bid and ask quotes in real-time, as there is for other asset classes. Customers do not have access to the real-time price feeds available to dealers on interdealer broker platforms, like MTS or BrokerTec. Rather, customers need to request quotes from individual dealers (including Defendants) – either electronically or through phone communication.

327. During the Class Period, Defendants also successfully defeated transparency measures in the European Government Bond market through their trade association, the EPDA. For example, in 2007, Defendants and their co-conspirators successfully opposed new

transparency measures proposed by the European Commission that would have disclosed pricing to European Government Bond customers. Later, in 2008, the EPDA rallied against a proposal by the Italian Treasury that would have made trading prices between Defendants and their customers for Italian European Government Bonds accessible to investors. Acting through the EPDA, Defendants and their co-conspirators argued that “imposing more transparency could be harmful.” Defendants recommended that regulators should “leave further transparency initiatives to the industry” and argued that information asymmetries (such as the inability of investors to see pricing and trading information) with respect to European Government Bond trading were a sign of an efficient European Government Bond market.

328. Defendants claimed that an opaque European Government Bond market was necessary to incentivize them to continue operating as European Government Bond primary dealers. Thus, Defendants raised the implicit threat that transparency in the European Government Bond market would cause them to retreat from their market-making obligations and withhold liquidity. But this threat masked Defendants’ true motive – to protect their information asymmetry, and when advantageous, collude on prices to customers.

329. Without access to reliable pricing information, investors like Plaintiffs were forced to turn to Defendants when transacting in European Government Bonds and to rely on Defendants to provide competitive European Government Bond pricing. The EPDA noted during the Class Period that, in trades between European Government Bond primary dealers and customers, trade information is “only available to direct counterparties to the trade.”

330. Transparency enables investors to identify dealers that offer superior prices, allowing them to seek out those dealers. Thus, transparency helps the most competitive dealers attract market share. However, price transparency was a risk to Defendants’ and their co-

conspirators' cartel because it would have allowed investors to see prices charged by European Government Bond dealers not participating in the cartel. Keeping the status quo enabled Defendants and their co-conspirators to continue dictating anti-competitive prices to uninformed investors handicapped by an inability to observe prices for European Government Bond transactions. Had Plaintiffs and the Class been able to observe market-wide pricing, it would have been readily apparent that Defendants and their co-conspirators were charging uniform, supra-competitive prices.

331. ***Fifth***, Defendants' conduct was contrary to their individual economic interests. For example, if a Defendant unilaterally widened its bid-ask spread prices to customers on a consistent basis, while others failed to do similarly, few would trade with that conspiring bank. Moreover, consistently failing to keep competitive spreads or make markets for customers would jeopardize a conspiring bank's privileged status as a primary dealer with European Government Bond issuers, potentially leading to its removal as a primary dealer. If a conspiring bank lost its primary dealer status, it would no longer have privileged access to information from Eurozone central banks. This would, in turn, make that conspiring bank's services less attractive to European Government Bond customers. Further, as explained above, it was also against an individual Defendant's individual economic self-interest to manipulate the outcome of European Government Bond auctions.

332. ***Sixth***, Defendants had strong incentives to collusively bid-up the prices at European Government Bond auctions, even if the cost of doing so was high. Strong performances at the auction – as determined by the amount a dealer is ultimately able to secure at an auction – improves a dealer's ranking. Rankings are then used as the basis for selecting a primary dealer to participate in more lucrative transactions, such as lead-managing a syndicate deal, interest rate swap transactions, and investment banking advisory projects. The better a dealer's ranking, the better

its chances of securing these more lucrative deals. Conspiring to bid up the auctions placed Defendants in a better position to secure these prized deals for themselves.

333. Avoiding competition also enabled Defendants to artificially widen bid-ask spreads and retain supra-competitive profits on their European Government Bond trades with Plaintiffs and members of the Class. Defendants, by virtue of their privileged position as primary dealers of European Government Bonds, had a wealth of knowledge about the offerings themselves, as well as customer identities, demand, trading habits, and order flow in both the primary and secondary markets. Sharing this information enabled the conspiring banks to coordinate on bid and ask prices to the detriment of Plaintiffs and members of the Class.

334. In addition, upwards of 50% of total compensation for sales and trading staff within Defendants' and their co-conspirators' European Government Bond trading and sales businesses was determined according to the amount of profits/losses generated, both collectively (*i.e.*, based on the profitability of the European Government Bond trading and sales business as a whole) and individually (*i.e.*, based on the profit derived from the European Government Bond transactions entered into by the individual). Job promotions were similarly determined according to the amount of profits/losses derived from European Government Bond transactions.

335. ***Seventh***, in the absence of a conspiracy, sharing proprietary trading information was contrary to Defendants' individual economic interests. Sharing trading and pricing information would have been dangerous in the hands of true competitors during the Class Period because it would allow rival dealers to "trade ahead" of the dealer's disclosed trade in the dealer-to-dealer market. Trading ahead occurs where a dealer learns ahead of time that another market participant intends to execute a trade, and then establishes a position that will benefit from the move in the market caused by the anticipated trade. This causes the market price to move against

the other market participant, benefitting the dealer who engaged in “trading ahead.” Accordingly, no one Defendant would share confidential order information because an opportunistic trader at a rival dealer could capitalize on the information to the detriment of the sharing Defendant.

336. Defendants themselves acknowledged that sharing proprietary information about planned trades and customer orders is against the economic self-interest of any rational, non-conspiring dealer and harms customers by causing inferior prices. In a position paper on price transparency that the EPDA submitted to a European regulator during the Class Period, the EPDA wrote that “the dealer (and indeed its customer) will be very concerned about other market participants being able to react ahead of the dealer trying to liquidate its position which it may have obtained in a transaction with a customer.”

337. *Eighth*, the same traders are involved in both the primary and secondary market for European Government Bonds, and these traders operate in a tightly knit community. Many traders have worked at multiple dealer banks during their careers and have had repetitive dealings with each other, as European Government Bond auctions were held frequently. These traders built friendships and networks with other primary dealer traders that extended beyond the office and into their respective personal lives and led them to view each other as collaborators instead of competitors.

338. Not only did this group of competitor traders meet every day virtually to discuss business in chat rooms like the “Cods and Chips” chat room, they spent evenings together in person. The close-knit friendship developed between traders at competitor banks lead to the culture of sharing propriety information and collaborating to fix bond prices.

339. It was not uncommon for rival European Government Bond traders to go out for dinners or drinks arranged either among themselves or by interdealer brokers. Familiarity with

each other and the friendships built over time facilitated each conspiring trader's willingness to exchange confidential, business-sensitive information and collaborate, rather than compete.

340. For example, in an October 28, 2010 chat that included traders from State Street Bank and Trust, UBS, and another co-conspirator, the traders planned to get a drink together:

October 28, 2010

Co-Conspirator Trader 1: im in ldn next wk....got fri off so might b up for a lunch drink if anyone fancies it

UBS Limited Trader 2: sounds like another plan

State Street Bank and Trust Trader 1: yep count me in...important to strengthen old relationships before i get going !!!!

341. Defendants' traders also met in person at events arranged by brokers. For example, on October 27, 2010, a broker from ICAP invited State Street Bank and Trust Trader 1 to the Rock Lawrence Dallaglio charity dinner in London to sit at ICAP's table together with other European Government Bonds traders. The broker informed State Street Bank and Trust Trader 1 that several high-ranking traders from other Defendants would also be attending, including Nomura's Managing Director of European Government Bond trading (who previously traded bonds at MLI), another Nomura European Government Bond trader, a European Government Bond trader from UBS, and the European Government Bond trader from Citi responsible for determining prices.

342. In another example on November 2, 2010, Co-Conspirator Trader 1 and NatWest Trader 1 planned to get lunch together:

November 2, 2010

Co-Conspirator Trader 1: we r flying thrus nigh [Thursday night] so i got fri [Friday] pretty free tho so thought id try and get out for a lunch

NatWest Trader 1: nice

Co-Conspirator Trader 1: u in on fri [Friday]?

NatWest Trader 1: yessir

343. In a December 7, 2011 chat that included traders from JP Morgan Securities, RBC Europe, UBS, and State Street Bank and Trust, the traders discussed dinner plans that evening:

December 7, 2011

JP Morgan Securities Trader 1: I've confirmed for 6 people, this evening, Semplice, 7:00 pm

RBC Europe Trader 1: [JP Morgan Securities Trader 1] multitasks... bids on the auctions, manages the exchange, swears at the market, and confirms the restaurant... all at the same time

344. *Ninth*, there was a high level of communications among Defendants and their co-conspirators. As the Commission investigation found, during the Class Period, Defendants' traders routinely discussed sensitive trading and order information directly with each other in electronic platforms and through communications with interdealer brokers. As previously discussed, traders' exchange of confidential customer order information in online chatrooms is unnecessary for the purposes of making markets and is contrary to their individual self-interest. There are significant concerns associated with direct communications between competitors of the sort identified above in Section V. Indeed, in response to the scandals involving anticompetitive conduct in the LIBOR and foreign exchange markets (among others), many financial institutions have prohibited their employees and traders from participating in multi-dealer chatrooms like the Cods and Chips chatroom here where Defendants coordinated and implemented their conspiracy.

345. Defendants also failed to monitor these trader communications though they had the means to do so. These oversight failures allowed employees in Defendants' European Government Bond trading and sales businesses to fix prices, share sensitive customer information, and coordinate trading strategies throughout the Class Period.

346. **Tenth**, Defendants and their co-conspirators had the opportunity to collude through their involvement in industry trade associations, such as the AFME and EPDA.

347. Within the AFME is the primary dealers board (the “Board”), which “addresses developments affecting the European government market specifically and aims to build consensus within the industry and acts as a bridge between financial market participants and policymakers.” One of the Board’s priorities is to “[a]ctively participate in industry events which focus on rates issues.”³¹ Through participation on the Board, Defendants and their co-conspirators had ample opportunity to discuss issues affecting the European Government Bond market, including matters affecting the primary and secondary markets for these products. During the Class Period, several of the largest European Government Bond primary dealers had representatives on the Board, as shown in Figure 14 below:

Figure 14 – AFME Board Members

Primary Dealer	AFME Board Member
Bank of America	William Scott
Citi	Jim Cowles
J.P.Morgan	Daniel Pinto
Natixis	Wouter Bod
Nomura	Paul Spurin
RBS	Renos Dimitriou
UBS	Sven Gerhardt
UniCredit	Karl-Heinz Riehm

³¹ AFME, *Primary Dealers*, <https://www.afme.eu/en/divisions-and-committees/primary-deals-rates/>.

348. Before the creation of the AFME in 2009, Defendants and their co-conspirators were members of the EPDA. European Government Bond primary dealers founded the EPDA to “advocate [] on behalf of eurozone government bond [p]rimary [d]ealers with relevant government and regulatory bodies through dialogue and market best-practices recommendations.”³² During the Class Period, the EPDA set industry standards applicable to Defendants’ European Government Bond trading and sales businesses.

349. Defendants’ high-ranking European Government Bond sales and trading personnel regularly met in person at conferences, meetings, and other events hosted by the AFME and the EPDA. These meetings provided another forum for Defendants’ European Government Bond trading and sales personnel to establish closer relationships while discussing sensitive subjects such as European Government Bond pricing. For example, the EPDA held annual conferences beginning in 2006 at locations throughout Europe. Defendants’ European Government Bond trading and sales personnel attended these conferences.

350. The AFME/EPDA held an Annual European Government Bond Conference in each year of the Class Period. Defendants’ European Government Bond trading and sales personnel attended these conferences and afforded Defendants an opportunity to meet in-person behind closed doors in bars, restaurants, hospitality suites, and hotel rooms adjoining the conference space.

351. Promotional materials for the Annual European Government Bond Conference state that it as the “ONLY event of its kind!” where attendees could “[j]oin 200 senior representatives from debt management offices (DMOs), government bond investors, central banks,

³² AFME, *Primary Dealers Handbook* (2015), ¶178: <https://www.afme.eu/globalassets/downloads/publications/afme-primary-dealers-handbook-q4-2015.pdf> at i.

regulators, primary dealers, trading platforms and brokers”³³ Each conference included speeches, roundtable and moderated panel discussions, presentations, break-out sessions, lunches, dinners, and networking sessions.

352. Promotional materials for the AFME’s 7th Annual European Government Bond Conference, held on November 8-9, 2012 in Brussels, Belgium, illustrates the nature and extent of Defendants’ participation in AFME events during the Class Period. Confirmed speakers at that year’s conference included representatives from the following Defendant banks:³⁴

Bank of America Defendants: Yunho Song, identified as Managing Director and Head of EMEA [Europe, Middle East, and Africa] Global Rates & Currencies (GRC) at Bank of America Merrill Lynch. In that role Song was “responsible for managing the EMEA foreign exchange, government bonds, interest rate swaps, interest rate options, structured products, repo-financing, and financial futures and options businesses.” Earlier in the Class Period, Song worked for Merrill Lynch, Pierce, Fenner & Smith Incorporated in New York.

Nomura: Paul Spurin, Managing Director of EMEA Flow Rates Trading for Nomura International PLC. In that role Spurin “r[an] the European Primary Dealership business and business strategy for EMEA flow rates Trading.” At the conference, Spurin served as a “discussion leader” for a breakout session concerning the profitability of primary dealerships, the “impact of overbidding” at European Government Bond auctions, and the importance of “dealer rankings.”

UBS: Paolo Crocé, Head of Interest Rates Trading EMEA for UBS.³⁵ Earlier in the Class Period, Crocé had served as Vice Chairman of the EPDA.

³³ <https://www.etfexpress.com/event/hedge-funds/afme-6th-annual-european-government-bond-conference> (last visited Feb. 8, 2021).

³⁴ <https://web.archive.org/web/20150115212949/http://afme.eu/Events/2012/Government-Bonds/Speakers>.

³⁵ “Interest Rates Trading EMEA” was UBS’s European Government Bond trading business during the Class Period.

353. Bank of America Merrill Lynch was also a named general sponsor of the 7th Annual European Government Bond Conference and the sole sponsor of the conference's main "Networking Lunch" event, held on November 9, 2012.³⁶

**IX. SIMILAR WRONGDOING IN OTHER MARKETS SUPPORTS
THE PLAUSIBILITY OF DEFENDANTS'
MANIPULATION OF EUROPEAN GOVERNMENT BONDS**

354. The Commission's announcement marks the fifth time that Defendants, their co-conspirators, and affiliated entities within the same bond trading and sales divisions have been investigated for engaging in anticompetitive conduct in bond markets in recent years. The European Government Bond market has key features in common with these other bond markets in which Defendants and their co-conspirators have engaged in similar anticompetitive conduct. These features include a lack of price transparency and a high degree of concentration by the largest dealers. In 2017, the United Kingdom's Financial Conduct Authority ("FCA") opened an investigation of several large dealers for manipulating Sovereign, Supranational and Agency ("SSA") bonds. Also in 2017, Mexico's competition regulator announced a probe into seven of the largest dealers in the Mexican government bond market. The Department of Justice ("DOJ") is presently investigating price-fixing and other unlawful conduct by dealers in both the U.S. Treasuries market and market for bonds issued by Fannie Mae and Freddie Mac.

355. Defendants and their co-conspirators engaged in multiple similar price-fixing conspiracies in various financial markets during the Class Period, which led government investigators to find parallel deficiencies in oversight and control within Defendants' and their co-

³⁶ <https://web.archive.org/web/20150120042611/http://afme.eu/Events/2012/Government-Bonds/Programme/>.

conspirators' trading and sales businesses. These ongoing investigations have resulted in criminal trials and convictions, billions of dollars in fines, and successful litigation by injured investors.

356. These findings further support the conspiracy alleged in this Complaint because they demonstrate that Defendants and their co-conspirators had deficient compliance and oversight systems in their sales and trading businesses during the Class Period.

357. **FX**: Multiple banks, including Defendants RBS, Bank of America, UBS, Citigroup, JPMorgan, and RBC failed to control or detect rampant misconduct amongst their trading staff in the foreign exchange ("FX") market. These failures allowed traders to fix bid-ask spreads, coordinate trading strategies with competitors to manipulate benchmark prices, and share confidential customer order information and proprietary information on trading positions with competitors in group chatrooms with names like "The Cartel." Defendants' deficient oversight and controls allowed this anticompetitive conduct to persist undetected for years during the Class Period.

358. The DOJ's Antitrust Division has obtained a guilty plea from RBS for failing to adequately monitor anticompetitive conduct in its subsidiaries' trading businesses and operating inadequate oversight measures that allowed trading and sales staff to engage in a years'-long conspiracy to fix FX prices during the Class Period. RBS's parent company paid fines related to its FX trading to the Board of Governors of the Federal Reserve System (the "Federal Reserve"), FCA, U.S. Commodity Futures Trading Commission ("CFTC"), the European Commission, and, most recently, the Swiss competition authority, WEKO. Bank of America's parent company paid fines related to its FX trading to the Federal Reserve and the Office of the Comptroller of the Currency ("OCC").

359. UBS similarly paid fines to the CFTC, FCA, Federal Reserve, and the Swiss Financial Market Supervisory Authority (“FINMA”). UBS was exempted from paying fines to the European Commission and WEKO only because it revealed the cartel’s existence to these regulators. The DOJ also granted UBS conditional immunity from criminal antitrust charges for its unlawful conduct in the FX market, but the DOJ found UBS in violation of its non-prosecution agreement due to UBS’s submissions in connection with Yen LIBOR and other benchmark interest rates.

360. Citigroup’s parent company paid fines to the CFTC, FCA, OCC, Federal Reserve, and Brazil’s competition authority, the Council for Economic Defense (“CADE”), and South Africa’s Competition Commission. The DOJ’s Antitrust Division has also obtained a guilty plea from Citigroup for failing to adequately monitor anticompetitive conduct in its subsidiaries’ trading businesses and operating inadequate oversight measures that allowed trading and sales staff to engage in a years’-long conspiracy to fix FX prices during the Class Period.

361. JPMorgan’s parent company similarly paid fines to the CFTC, FCA, OCC, Federal Reserve, and CADE. The DOJ’s Antitrust Division has obtained a guilty plea from JPMorgan for failing to adequately monitor anticompetitive conduct in its subsidiaries’ trading businesses and operating inadequate oversight measures that allowed trading and sales staff to engage in a years’-long conspiracy to fix FX prices during the Class Period.

362. **LIBOR/Euribor/Yen LIBOR/Swiss franc LIBOR**: Government investigations and civil lawsuits revealed widespread collusion among banks to manipulate benchmark interest rates for multiple currencies (U.S. dollar LIBOR, Euribor, Yen LIBOR, Swiss franc LIBOR) during the Class Period. These investigations have led to dozens of fines and settlements for price-fixing by Bank of America Corporation (the parent of Defendant BANA), the corporate parent of

RBS, UBS, Citibank, N.A. (the parent of Defendants Citigroup Global Markets Limited and Citigroup Global Markets Inc.), JPMorgan Chase & Co. (the parent of Defendant JPMorgan Chase Bank, N.A.). Regulators found that trading staff within these banks engaged in widespread misconduct during the Class Period, including coordinating false submissions by panelists to the benchmark-setting panel, sharing customer and order information, and manipulating market prices by submitting false orders (*i.e.*, “spoofing”).

363. **ISDAfix**: The CFTC issued Orders Instituting Proceedings Pursuant to §§6(c) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposition Remedial Sanctions with Bank of America, N.A., and The Royal Bank of Scotland plc for operating deficient compliance and oversight functions that allowed traders to systematically manipulate the U.S. dollar ISDAfix benchmark during the Class Period to boost trading profits. In a private civil suit, Bank of America, N.A., The Royal Bank of Scotland plc, and UBS AG settled claims that they conspired to manipulate ISDAfix for a total of \$114 million.

364. **USD-denominated SSA Bonds**: A DOJ investigation into price-fixing in the USD-denominated SSA bond market became public in December 2015. It quickly prompted simultaneous cartel investigations by the FCA and the European Commission, and the filing of private lawsuits. The private civil action, originally filed in May 2016, was amended in April 2017 to include 10 banks and hundreds of redacted chats and transcripts that demonstrated that these banks failed to detect and deter collusive communications by trading and sales staff in their bond businesses. In August 2017, Bank of America Corporation agreed to settle for a total of \$17 million.

365. **Mexican Government Bonds**: In October 2019, the Mexican antitrust regulator, the Comisión Federal de Competencia Económica (“COFECE”), filed charges against seven

dealers in the Mexican government bond market, including a subsidiary of Bank of America Corporation that engages in bond trading under its Global Banking and Markets business segment, as well as Citigroup Inc.'s (the ultimate parent of Defendants Citigroup Global Markets Limited and Citigroup Global Markets Inc.)'s local unit Citibanamex, and JPMorgan Chase & Co. (the parent of Defendant JPMorgan Chase Bank, N.A.), for colluding to fix the prices of Mexican government bonds. At least one additional bank has escaped charges by cooperating with COFECE's cartel leniency program.

366. **Swiss Franc Interest Rate Derivatives:** The Commission fined four banks – including UBS and JPMorgan – a total of €32.4 million, and RBS's parent company received leniency for its fine of around €5 million, for conspiring to fix bid-ask spreads in the market for interest rate derivatives denominated in Swiss francs. The Swiss franc interest rate derivatives conspiracy operated similarly to the conspiracy alleged in this Complaint and involved an agreement among horizontal competitors in the OTC market for derivatives to charge inflated bid-ask spreads to customers. RBS failed to detect and deter collusive communications among traders at these banks.

X. CLASS ACTION ALLEGATIONS

367. Plaintiffs bring this action on behalf of themselves and as a class action under Rule 23(a) and (b)(3) of the Federal Rules of Civil Procedure, seeking relief on behalf of the following class (the "Class"):

All persons or entities who purchased or sold European Government Bonds in the United States directly from Defendants from at least as early as January 1, 2007 through at least December 31, 2012 (the "Class Period").

Excluded from the Class are Defendants and their employees, affiliates, parents, subsidiaries, and co-conspirators, whether or not named in this Complaint, and the United States Government.

368. Plaintiffs believe that there are thousands of Class members, making the Class so numerous and geographically dispersed that joinder of all Class Members is impracticable.

369. There are questions of law and fact common to the Class that relate to the existence of the conspiracy alleged, and the type and common pattern of injury sustained as a result thereof, including, but not limited to:

- (a) whether Defendants engaged in a combination or conspiracy to fix, raise, maintain, stabilize, or otherwise manipulate the prices for European Government Bonds in violation of the Sherman Act;

- (b) the identity of the participants in the conspiracy;

- (c) the duration of the conspiracy;

- (d) the nature and character of the acts performed by Defendants in furtherance of the conspiracy;

- (e) whether Defendants' conduct, as alleged in this Complaint, caused injury to the business or property of Plaintiffs and the Class;

- (f) whether Defendants fraudulently concealed the conspiracy's existence from Plaintiffs and the Class; and

- (g) the appropriate measure of damages sustained by Plaintiffs and the Class.

370. Plaintiffs' claims are typical of the claims of the other Class members. Plaintiffs and Class members sustained damages arising out of Defendants' common course of conduct in violation of the law as described in this Complaint. The injuries and damages of each Class member were directly caused by Defendants' wrongful conduct.

371. Plaintiffs will fairly and adequately protect the interests of Class members. Plaintiffs are adequate representatives of the Class and have no interests adverse to the interests of absent Class members. Plaintiffs have retained counsel competent and experienced in class action litigation, including antitrust class action litigation.

372. The prosecution of separate actions by individual Class members would create a risk of inconsistent or varying adjudications.

373. The questions of law and fact common to the Class members predominate over any questions affecting only individual members, including legal and factual issues relating to liability and damages.

374. A class action is superior to other available methods for the fair and efficient adjudication of this controversy. Treatment as a class action will permit a large number of similarly situated persons to adjudicate their common claims in a single forum simultaneously, efficiently, and without duplication of effort and expense that numerous, separate individual actions, or repetitive litigation would entail. The Class is readily definable and is one for which records should exist in the files of Defendants, Class members, or the public record. Class treatment will also permit the adjudication of relatively small claims by many Class members who otherwise could not afford to litigate the claims alleged herein, including those for antitrust. This class action presents no difficulties of management that would preclude its maintenance as a class action.

XI. DEFENDANTS FRAUDULENTLY CONCEALED THEIR MISCONDUCT

375. Defendants concealed their wrongdoing in manipulating the prices of European Government Bonds sold to investors. Thus, the statutes of limitations relating to the claim for relief alleged below were tolled due both to Defendants' affirmative acts of concealment and the inherently self-concealing nature of their private unregulated conduct.

376. Defendants' success in concealing their collusion was facilitated by their tremendous control over the market for European Government Bonds.

377. Neither Plaintiffs nor Class members knew of Defendants' unlawful and self-concealing manipulative acts and could not have discovered them by the exercise of reasonable due diligence, if at all, at least prior to public reports disclosing the Commission's Statement of Objections concerning the European Government Bond market. Plaintiffs and the Class also lacked any basis for identifying the wrongdoers or calculating damages before that date. In fact, Defendants' collusive activities were so well-hidden that regulators in Europe and elsewhere were unaware of such conduct for years.

378. Only after the Commission publicly announced its preliminary findings of price collusion in the European Government Bond market on January 31, 2019, did Plaintiffs have a sufficient basis to investigate Defendants' possible collusion. Even now, most details of the Commission's proceedings remain confidential and undisclosed.

379. Reasonable due diligence could not have uncovered the conspiracy because: (i) Defendants' trading positions and trading strategies in the European Government Bond market are not publicly available; (ii) the bilateral, non-exchange traded nature of European Government Bond transactions make observing anticompetitive behavior in that market exceedingly difficult; (iii) the highly specialized and esoteric nature of the different aspects of the European Government Bond market makes it exceedingly difficult for an ordinary person to assess improprieties; (iv) neither Defendants nor their co-conspirators told Plaintiffs or other Class members that they were conspiring to fix, stabilize, maintain, and/or otherwise manipulate the prices of European Government Bonds; and (v) Plaintiffs and members of the Class were not parties to Defendants'

and their co-conspirators' communications in private chatrooms in which they agreed to fix the prices of European Government Bonds.

380. Defendants also took active steps to conceal evidence of their misconduct from Plaintiffs, the Class, government regulators, and the public by holding out their activities in the European Government Bond market as good-faith market-making conduct. Indeed, each Defendant's codes of conduct represented that their operations were above board, providing a false sense of security to unwitting investors:

(a) ***Bank of America.*** Bank of America's Code of Ethics stated that it "is more than just words on a page. It is a living and breathing document that provides us with basic guidelines of business practice and how we, as Bank of America associates, are expected to act both personally and professionally."³⁷ Bank of America expected its employees to "deal fairly with [its] customers, competitors, vendors and teammates" and refrain from taking "unfair advantage of anyone through manipulation, concealment, abuse of privileged information, misrepresentation of facts or any other unfair-dealing practice."³⁸

(b) ***Merrill Lynch.*** Merrill Lynch's Code of Conduct stated that "[e]very Merrill Lynch person must deal fairly with Merrill Lynch's clients, vendors, competitors and fellow employees. No Merrill Lynch person may take advantage of anyone through unethical or illegal measures, such as manipulation, concealment, abuse of privileged information, misrepresentation of material facts or any other unfair dealing practices." In addition, the Code of Conduct stated that "All Merrill Lynch persons must guard against unfair competitive

³⁷ Bank of America Corporation, Code of Ethics, at 3 (2010), <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MjU0Mzh8Q2hpbGRJRD0tMXxUeXBIPtM=&t=1>.

³⁸ Bank of America Corporation, Code of Ethics, at 2, https://www.banktrack.org/download/code_of_ethics_20/190318code_of_ethics_dec2013.pdf.

practices and exercise extreme caution to avoid conduct that might violate antitrust laws or other rules prohibiting anti-competitive activities. . . . Employees must avoid any discussion with competitors of proprietary or confidential information, business plans or topics such as pricing or sales policies – the discussion of which could be viewed as an attempt to make joint rather than independent business decisions.”³⁹

(c) **Natixis.** Natixis’s 2011 Registration and Annual Financial Report stated that its employees were bound by the rules of conduct provided in the General Regulation of the Autorité des marchés financiers (“AMF”) “when providing investment services,” which includes EGB trading.⁴⁰ The AMF’s General Regulation prohibited transactions that “secure, by a person, or persons acting in collaboration, the price of one or several financial instruments at an abnormal or artificial level.”⁴¹

(d) **RBS.** RBS’s Code of Conduct was designed to promote, among other things “honest and ethical conduct” and “compliance with applicable laws, rules and regulations.”⁴² The Code of Conduct stated that RBS was “strongly committed to conducting [its] business affairs with honesty and integrity and in full compliance with all applicable laws, rules and regulations. No Group employee shall commit an illegal or unethical act, or instruct others to do so for any reason.”⁴³

³⁹ Merrill Lynch Guidelines for Business Conduct, at 7, <https://www.sec.gov/Archives/edgar/data/65100/000095012306002318/x16704exv14w1.htm>.

⁴⁰ Natixis, 2011 Registration and Annual Financial Report, at 113, https://www.natixis.com/natixis/upload/docs/application/pdf/2012-04/ddr_natixis_2011_-_vgb_-_vdef_-_13_04_2012_2012-04-13_17-47-19_848.pdf.

⁴¹ General Regulation of the Autorité des marchés financiers, Art. 631-1(b), <https://www.amf-france.org/eli/fr/aai/amf/rg/20111203/notes/en.html>.

⁴² RBS Code of Conduct, at 14, http://www.rbsworldwide.com/downloads/pdf/about_rbs/RBS_Group_Code_Conduct.pdf.

⁴³ *Id.*

(e) **Nomura.** Nomura’s Code of Ethics stated that “Nomura People must respect fair business practices in jurisdictions where they operate and endeavor to deal fairly with Nomura Group’s customers, suppliers, competitors and employees. Nomura People should not take unfair advantage of anyone through manipulation, concealment, abuse of confidential information, misrepresentation of material facts, or any other unfair-dealing practice.”⁴⁴ Moreover, under the Code of Ethics, all Nomura financial professionals must comply “with the letter and spirit of all applicable laws, rules and regulations[.]”⁴⁵

(f) **UBS.** UBS’s Code of Conduct and Ethics stated that its employees “obey the laws, rules and regulations where we live, work and do business” and that they “act in the interest of fair and effective competition and respect all the laws, rules and regulations that are designed to create a level playing field for all – including antitrust and competition laws.”⁴⁶

(g) **UniCredit.** UniCredit’s Code of Ethics stated that its employees “are required to comply with rules applicable in all countries in which the Bank operates and/or in which they (for example in the case of third parties) provide their work on behalf and/or in the

⁴⁴ Nomura, Basic Principles & Code of Conduct | Code of Ethics (2010), at §7(a), <http://www.nomuraholdings.com/investor/library/ar/csr/data/2010.pdf>.

⁴⁵ *Id.*

⁴⁶ UBS, Code of Conduct and Ethics (2019), at 6, <https://www.ubs.com/global/en/our-firm/our-culture/code-of-conduct.html>. *See also* UBS, Code of Conduct and Ethics (2010), at 4 (“We are committed to the principle of the market economy and to complying with relevant laws, rules, and regulations, including applicable anti-trust and competition laws.”) http://web.archive.org/web/20101206042207/http://www.ubs.com/1/ShowMedia/about/code_of_conduct?contentId=152516&name=Code%20of%20Business%20Conduct%20and%20Ethics%20of%20UBS.pdf.

interest of the Bank.” Likewise, all employees “are required to conduct their business in full compliance with any applicable competition laws and regulations.”⁴⁷

(h) **State Street.** State Street’s Standard of Conduct states that employees should “[n]ever solicit friends or colleagues who work at competitors for confidential information about the competitor.” Instead, employees are directed to “[o]nly acquire competitive information and market data from public sources or through lawful means.”⁴⁸

(i) **Citigroup.** Citigroup’s Code of Conduct states that “Citi is subject to complex laws designed to preserve competition among enterprises and to protect consumers from unfair business arrangements and practices.” Employees “are expected to be aware of and comply with these laws at all times.” Among the “unlawful anticompetitive activities” that Citigroup employees should avoid, include: (1) “Proposals from competitors to share price or other competitive marketing information or to allocate markets or clients,” (2) “Attempts by clients or potential clients to preclude Citi from doing business with, or contracting with, another client,” and (3) “Discussions at industry trade association meetings on competitively sensitive topics, such as prices, pricing policies, costs and marketing strategies.”⁴⁹

(j) **Jefferies.** Jefferies’s Code of Ethics states that employees must “deal fairly with our clients, service providers, suppliers, competitors and each other. Taking unfair advantage of anyone through manipulation, concealment, abuse of privileged information,

⁴⁷ UniCredit S.p.A., Code of Ethics (2018), at 3, <https://www.unicreditgroup.eu/content/dam/unicreditgroup-eu/documents/en/governance/supervisory-body/Code-of-Ethics-231.pdf>.

⁴⁸ State Street, Standard of Conduct (2020), at 45, https://s26.q4cdn.com/446391466/files/doc_downloads/irw/employee-conduct.pdf.

⁴⁹ Citigroup, Code of Conduct (2011), at 8, https://web.archive.org/web/20121021071221/https://www.citigroup.com/citi/investor/data/codeconduct_en.pdf.

misrepresentation of material facts, or any other unfair dealing practice is a violation of the Code.”⁵⁰

(k) **RBC.** RBC’s Code of Conduct states each employee “has a responsibility to know and comply with applicable competition and anti-trust laws.” The Code of Conduct prohibits any agreement with a competitor to either direct or indirectly (1) “fix, maintain, increase or try to control the price of a product or service,” (2) “divide or allocate sales, clients, suppliers or markets for the supply, or acquisition of, products or services,” or (3) “fix, maintain, increase, lessen, prevent, eliminate or otherwise try to control the production or supply of a product or service.”⁵¹ An October 2010 version of RBC’s Code of Conduct similarly demands that employees are to “avoid any collusive, anti-competitive discussions and/or agreements with competitors.”⁵²

(l) Defendants also concealed their conduct by: (i) maintaining the secrecy of their price-fixing scheme; (ii) avoiding any discussion in public fora regarding their collusive activities and manipulation of European Government Bond prices; and (iii) using non-public proprietary electronic communication platforms (*e.g.*, instant messaging, electronic chatrooms, etc.) to coordinate trading strategies.

381. Defendants failed to implement the proper internal controls to detect misconduct concerning price-fixing of European Government Bonds. Such internal failures made it more

⁵⁰ Jefferies Group LLC, Code of Ethics (2017), at 2, https://www.jefferies.com/CMSFiles/Jefferies.com/files/Policies/Code_of_Ethics.pdf. See also Jefferies Group LLC, Code of Ethics (Nov. 29, 2011), at <http://web.archive.org/web/20120308124743/http://www.jefferies.com/pdfs/charters/CodeOfEthics.pdf> (same).

⁵¹ RBC, Code of Conduct (2021), at 14, https://www.rbc.com/our-company/_assets-custom/pdf/Code-Of-Conduct.pdf.

⁵² RBC, Code of Conduct (Oct. 1, 2010), at 12, http://web.archive.org/web/20110626014229/http://www.rbc.com/governance/_assets-custom/pdf/RBCCodeOfConduct.pdf.

difficult for Plaintiffs, the Class, government regulators, and the public to discover Defendants' misconduct.

382. As a result of Defendants' affirmative steps to conceal their improper conduct; their willful decision not to implement proper controls to detect improper conduct; the self-concealing nature of the price-fixing conspiracy; and the resulting lack of public information about the entities and the material aspects of the conspiracy, collusion, and trading based on nonpublic information, the statutes of limitations were tolled for Plaintiffs' and the Class's claims.

FIRST CLAIM FOR RELIEF

VIOLATION OF 15 U.S.C. §1 CONTRACT, COMBINATION, OR CONSPIRACY IN RESTRAINT OF TRADE

383. Plaintiffs incorporate the preceding paragraphs by reference.

384. Defendants entered into and engaged in a combination and conspiracy that was an unreasonable and unlawful restraint of trade in violation of §1 of the Sherman Act, 15 U.S.C. §1, *et seq.*

385. During the Class Period, Defendants entered into an agreement to reduce competition among themselves by fixing and manipulating the prices of European Government Bonds sold in the United States.

386. This conspiracy to manipulate European Government Bond prices caused injury to both Plaintiffs and the Class by depriving them of the benefit of competitive European Government Bond prices reflecting true market fundamentals for some period during and following Defendants' unlawful conduct, and thus, Plaintiffs and the Class received, upon execution of their trades, less in value than they would have received absent Defendants' wrongful conduct.

387. The conspiracy is a *per se* violation of §1 of the Sherman Act. Alternatively, the conspiracy resulted in substantial anticompetitive effects in the European Government Bond

market. There is no legitimate business justification for, nor pro-competitive benefits from, Defendants' conduct. Furthermore, any business justification is outweighed by the anticompetitive effects of their illegal conduct.

388. As a direct and proximate result of Defendants' violation of §1 of the Sherman Act, Plaintiffs and the Class have been injured in their business and property throughout the Class Period.

389. Plaintiffs and the Class are entitled to treble damages for the violations of the Sherman Act alleged in this Complaint.

XII. RELIEF REQUESTED

Accordingly, Plaintiffs demand relief as follows:

(A) That the Court certifies this lawsuit as a class action under Fed. R. Civ. P. 23(a) and (b)(3), that Plaintiffs be designated as Class Representatives, that Plaintiffs' counsel be appointed as counsel for the Class, and that the Court directs that reasonable notice of this action, as provided by Fed. R. Civ. P. 23(c)(2), be given to each and every member of the Class;

(B) That the unlawful conduct alleged in the Complaint be adjudged and decreed to violate §1 of the Sherman Act;

(C) That the Court award Plaintiffs and the Class damages against Defendants for their violations of federal antitrust laws, in an amount to be trebled in accordance with such laws, plus interest at the highest legal rate;

(D) That the Court award Plaintiffs and the Class their costs of suit, including reasonable attorneys' fees and expenses, as provided by law; and

(E) That the Court directs such further relief as it may deem just and proper.

XIII. DEMAND FOR JURY TRIAL

Pursuant to Fed. R. Civ. P. 38(b), Plaintiffs demand a jury trial as to all issues triable by a jury.

Dated: February 9, 2021

**LABATON SUCHAROW
LLP**

s/ Gregory S. Asciolla
GREGORY S. ASCIOLLA
MATTHEW J. PEREZ
VERONICA BOSCO
**LABATON SUCHAROW
LLP**
140 Broadway
New York, NY 10005
Telephone: 212-907-0700
Facsimile: 212-818-0477
gasciolla@labaton.com
mperez@labaton.com
vbosco@labaton.com

**SCOTT+SCOTT
ATTORNEYS AT LAW LLP**

s/ Kristen Anderson
KRISTEN ANDERSON
DONALD A. BROGGI
MICHELLE E. CONSTON
The Helmsley Building
230 Park Ave., 17th Floor
New York, NY 10169
Telephone: 212-223-6444
Facsimile: 212-223-6334
kanderson@scott-scott.com
dbroggi@scott-scott.com
mconston@scott-scott.com

CHRISTOPHER M. BURKE
**SCOTT+SCOTT
ATTORNEYS AT LAW LLP**
600 W. Broadway, Suite 3300
San Diego, CA 92101
Telephone: 619-233-4565
Facsimile: 619-233-0508
cburke@scott-scott.com

DAVID R. SCOTT
**SCOTT+SCOTT
ATTORNEYS AT LAW LLP**
156 South Main Street
P.O. Box 192
Colchester, CT 06415
Telephone: 860-537-5537
Facsimile: 860-537-4432
david.scott@scott-scott.com

**LOWEY DANNENBERG,
P.C.**

s/ Vincent Briganti
VINCENT BRIGANTI
GEOFFREY M. HORN
CHRISTIAN LEVIS
ROLAND R. ST. LOUIS, III
44 South Broadway, Suite 1100
White Plains, NY 10601
Telephone: 914-997-0500
Facsimile: 914-997-0035
vbriganti@lowey.com
ghorn@lowey.com
clevis@lowey.com
rstlouis@lowey.com

CHARLES KOPEL
**LOWEY DANNENBERG,
P.C.**
One Tower Bridge
100 Front Street, Suite 520
West Conshohocken, PA 19428
Telephone: 215-399-4770
Facsimile: 610-862-9777
ckopel@lowey.com

Interim Co-Lead Counsel for the Class

JOSEPH J. TABACCO, JR.
TODD A. SEAVER
CARL N. HAMMARSKJOLD
BERMAN TABACCO
44 Montgomery Street, Suite 650
San Francisco, CA 94104
Telephone: 415-433-3200
Facsimile: 415-433-6382
jtabacco@bermantabacco.com
tseaver@bermantabacco.com
chammarkjold@bermantabacco.com

DAVID A. SLOSSBERG
JEFFREY P. NICHOLS
**HURWITZ SAGARIN SLOSSBERG
& KNUFF, LLC**
147 North Broad Street
Milford, CT 06460
Telephone: 203-877-8000
Facsimile: 203-878-9800
dslossberg@hssklaw.com
jnichols@hssklaw.com

STEVE W. BERMAN
**HAGENS BERMAN SOBOL SHAPIRO
LLP**
1301 Second Avenue, Suite 2000
Seattle, WA 98101
Telephone: 206-623-7292
Facsimile: 206-623-0594
steve@hbsslaw.com

Additional Counsel

CERTIFICATE OF SERVICE

I hereby certify that on February 9, 2021, I caused the foregoing to be electronically filed with the Clerk of the Court using the CM/ECF system, which will send notification of such filing to the email addresses denoted on the Electronic Mail Notice List.

s/ Kristen Anderson
Kristen Anderson

APPENDIX A

Appendix A

Defendant family	Defendant	SBCERA	IBEW Local 103	Ohio Carpenters
Bank of America	Bank of America, N.A.			✓
	Merrill Lynch International	✓	✓	✓
Natixis	Natixis S.A.	✓		✓
RBS	NatWest Markets plc (f/k/a Royal Bank of Scotland plc)	✓	✓	✓
	NatWest Markets Securities Inc. (f/k/a RBS Securities Inc.)			✓
Nomura	Nomura Securities International Inc.			
	Nomura International PLC	✓	✓	
UBS	UBS AG	✓		✓
	UBS Europe SE			✓
	UBS Securities LLC (f/k/a UBS Warburg LLC)			✓
UniCredit	UniCredit Bank AG	✓		
	UniCredit Capital Markets LLC			
Citigroup	Citigroup Global Markets Limited	✓		
	Citigroup Global Markets Inc.	✓		✓
JPMorgan	JPMorgan Chase Bank, N.A.	✓		
	J.P. Morgan Securities plc (f/k/a J.P. Morgan Securities Ltd.)	✓		
	J.P. Morgan Securities LLC (f/k/a J.P. Morgan Securities Inc.)			✓
RBC	RBC Europe Limited f/k/a Royal Bank of Canada Europe Limited	✓		
	RBC Capital Markets, LLC			✓
Jefferies	Jefferies International Limited	✓		
	Jefferies LLC (f/k/a Jefferies & Company, Inc.)			✓
State Street	State Street Corporation			
	State Street Bank and Trust Company	✓		